CHURCH CLUB

A study in cross programming as a means of survival for the church in the contemporary urban environment

Thomas Welz
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CHURCH – CLUB

A study in cross programming as a means of survival

for the church in the contemporary urban environment

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ABSTRACT

Church – Club

A study in cross-programming as a means of survival for the church in the contemporary urban environment.

This dissertation sets out to discover a new of mode of being for the Pentecostal church which will ensure its survival and continued existence in the contemporary urban environment of the Claremont Central Business District. It is argued that the institution of the church is under threat in the urban context. The church is in decline and urban land is in demand. The dissertation argues cross-programming the church will ensure its survival within this context by introducing new and diverse revenue streams which reduces dependence on dwindling membership contributions, opens up new dialogues between the church and its context, thus justifying its place within the context by filling gaps within and building on the existing contextual programmatic mix. Central to this programmatic problem the space of the church still needs to hold onto and express the essence of what it is that makes it a sacred space.

The initial data gathering was done by site, programmatic and statistical analysis; this data was gathered on site and through various publications. In addition, theoretical and technical research was gathered through various peer reviewed texts and publications. In the process of gathering information, common themes, patterns and connections between the different analyses were made which in turn led to further research or conclusions which assisted the argument and informed the design development of the project.

In conclusion it was found that the central idea of cross-programming the urban church was workable. Here there would undoubtedly have to be some compromise as each programme presents different requirements, but ultimately the application of the key theoretical theme of verticality brought unity to the scheme. Additionally, there was also need for some unconventional construction techniques to achieve comfortable internal environments. And finally the result of the incorporation of diverse programming proved to yield greater and more diverse interactions between the church and its context which ultimately ensures its place, role and survival in the contemporary urban context.

Thomas Welz. 55 Bathurst Road, Kenilworth. 22nd October 2014

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1.

INTRODUCTION

This dissertation sets out to discover a new of mode of being for the Pentecostal church which will ensure its survival and continued existence in the contemporary urban environment of the Claremont Central Business District. Today in urban centres, the institution of the church is under threat. In the past large land parcels were given over to the low and mono-function usage of the church. Today the demand for land is ever growing, and coupled with the fact that the institution of the church is experiencing a decline in membership makes it difficult to justify giving the church land and a place within the urban environment. Therefore if the church is to survive in the urban context it needs to be re-thought of as a multi-functional and cross programmed institution, a place of high activity and a place in which these activities and programs contribute to the continued existence and presence of the church in the contemporary urban environment.

The project is located in the heart of the ever expanding Claremont Central Business District Here the constrained site, the congested and ever densifying urban context offer a prime testing ground in which new urban church can evolve. In addition to density the context offers a dynamic mix of activities which inform and inspire the programming of the new church.

At the heart of this investigation the church is the protagonist and its space is still considered to be sacred. Despite the dynamic and somewhat chaotic context and intense or extreme cross-programming the space of the church still needs to hold onto and express the essence of what it is that makes it a sacred space.

This report sets out to describe and explain the development of this dissertation in six main sections. The first section briefly describes how the idea of the cross programmed urban church developed out of two initial interests at the beginning of this year long dissertation. The two initial interests are in light and the area of the Claremont Central Business District. The interest in light was worked out in a series of studies which sought to investigate the properties of the ethereal, the numinous, the veiled and the translucent. These studies led to the interest and pursuit of sacred space as part of this dissertation topic. The interest in Claremont is in its dense, congested and truly urban environment. Here investigations into the large recent mixed use developments and into the sacred sites within the area led to the development of the argument for the cross-programming of the urban church as a means of its survival in this urban context.

The second section seeks to build an understanding of the essential characteristics of sacred space. Here the significance and the development of characteristics of the east – west axis and orientation and of the vertical are described and investigated through historical examples..

The third section describes the explorations and urban mapping exercises which lead to the selection of the programmes of a backpackers' hostel, a crèche, a coffee shop, a ward councillor's office and a night club for the new urban church. Here the links between each programme and how each is beneficial to the church are discussed. This discussion builds and cements the argument for cross-programming of the church as a means of survival in the urban context.

The fourth section briefly describes three key design moves and strategies which are instrumental in the development and the working out of the new urban church. The discussion describes how verticality was instrumental in the arrangement of programme, how this vertical arrangement assists in developing the three major internal spaces and lastly the development of the grid and its use in giving clarity to the plan is described.

The fifth section deals with the technical problem of insulating the backpackers' dormitory rooms against the sound of the nightclub, here the ideas and the solutions of the shield, buffer spaces and an independent structure are described in detail. In addition to sound insulation the issue of the internal sound quality of the major space is discussed. Here the strategies of materiality and reverberation time, room shape, sound diffusion and direct and indirect sound paths are calculated and described.

The report concludes with the inclusion of all the up-to-date and scaled drawings of the design and by a brief summary of the overall findings of this study in cross-programming as a means of survival for the church in the contemporary urban environment.

5.

INITIAL INTERESTS & THE CROSS-PROGRAMMING OF THE URBAN CHURCH

5.1. Light Studies & Sacred Space

The first of two initial interests is in light and of the effects it has on space. This interest is worked out in a series of studies in which light is manipulated to bring the effect of the ethereal, the numinous, the veiled and the translucent to space. These effects are achieved by the simple manipulation of the colour, texture and shape of light (see Figures 00 – 00). From realising the potential within these small studies, this interest in light grew and developed into an interest in sacred space.

The Ethereal:
Natural light cast across a rock fragment brings the relief into sharp detail. The space can then be manipulated by adding colour to the light. Yellow brings warmth and vibrancy to the space; red adds intensity; blue brings stability and calmness and green makes the space seem enticing and welcoming.


YELLOW LIGHT


RED LIGHT


BLUE LIGHT


GREEN LIGHT

LIGHT STUDY: THE ETHEREAL
FIGURE 02

The Numinous:

The small space presents itself as austere and minimal. The light funnel is fitted with a dial that produces a dramatic shadow in the space below. Colour filters are added to test the effect on the space.

NATURAL LIGHT

NATURAL LIGHT

BLUE LIGHT

YELLOW LIGHT

LIGHT STUDY: THE NUMINOUS

FIGURE 03

The Veiled and the Translucent:

The veiled effect is achieved by punching holes in an elaborate light funnel. Internally different colour filters are set up behind the holes on each of the sides. This results in small space below receiving fragments of light that alternate in shape and colour as the sun changes through out the day. Translucency is achieved externally as the top of the funnel is clad in a translucent material which results in the funnel being partially visible.

GREEN LIGHT

YELLOW LIGHT

YELLOW LIGHT

BLUE LIGHT

LIGHT STUDY: THE VEILED & THE TRANSLUCENT

FIGURE 04

5.2. The Claremont Central Business District

The other initial interest is in the area of the Claremont Central Business District. This area is of interest as it is one of the few areas, within the greater Cape Town area, which is truly urban (see Figure 00). The Claremont CBD is dense, diverse, accessible, continuously growing and is host to a variety of activities which play out through the day and into the night (see Figure 00).

In this area one can find a good mix of commercial, retail, residential and recreational activities concentrated along and around the Main Road strip (see Figure 00). In addition, and slightly further north, the large and significant institutions of the Newlands Cricket and Rugby Stadiums are found, here this cluster is completed by the historic and industrial SAB Millers' Brewery complex.

This mix and concentration of activities is supported by the interconnection of public transport networks which come together at the Claremont Public Transport Interchange which, as stated by the City of Cape Town (2008), serves 29 000 commuters per work day (see Figure 00). At the Transport Interchange commuters can easily access the Cape Town CBD; the Cape Flats; The Southern Peninsula and the Atlantic Seaboard via train; bus; taxi or a combination of modes of transport. In addition to public transport there is also good connectivity for the private commuter as the CBD is well connected to the M3 highway which links up to the N1 and N2 highways.

Lastly it must be pointed out that in the last 10 years the Claremont CBD has seen a dramatic increase in the construction of new medium to large buildings (see Figure 00). The majority of these developments are mixed use which comprise of retail, commercial and residential. Aside from the mixed used developments there is also a significant amount of pure residential developments which are realised as apartment blocks. When looking at this it becomes clear that this area is becoming more densely populated. In addition when examining the quality and offering of these developments it becomes evident that land in Claremont is at a premium and there is a drive to construct taller buildings and pack more onto smaller and more confined sites.

NATIONAL HIGHWAYS

METROPOLITAN HIGHWAYS

MAJOR ROADS

CAPE TOWN CBD

BELVILLE CBD

CLAREMONT CBD

CONCLUSIONS

The Claremont CBD is one of three dense urban areas within the greater Cape Town area.The CBD has strong connections to the Cape Town CBD and to the surrounding southern suburbs

LOCALITY DIAGRAM
FIGURE 05

ARIEL PHOTO : CLAREMONT

MAIN ROAD : CLAREMONT

TAXI RANK : CLAREMONT

NIGHT ACTIVITY : CLAREMONT

CLAREMONT CBD: IMAGERY
FIGURE 06

MIXED USE: COMMERCIAL / RETAIL / RESIDENTIAL

STADIUMS

INDUSTRIAL

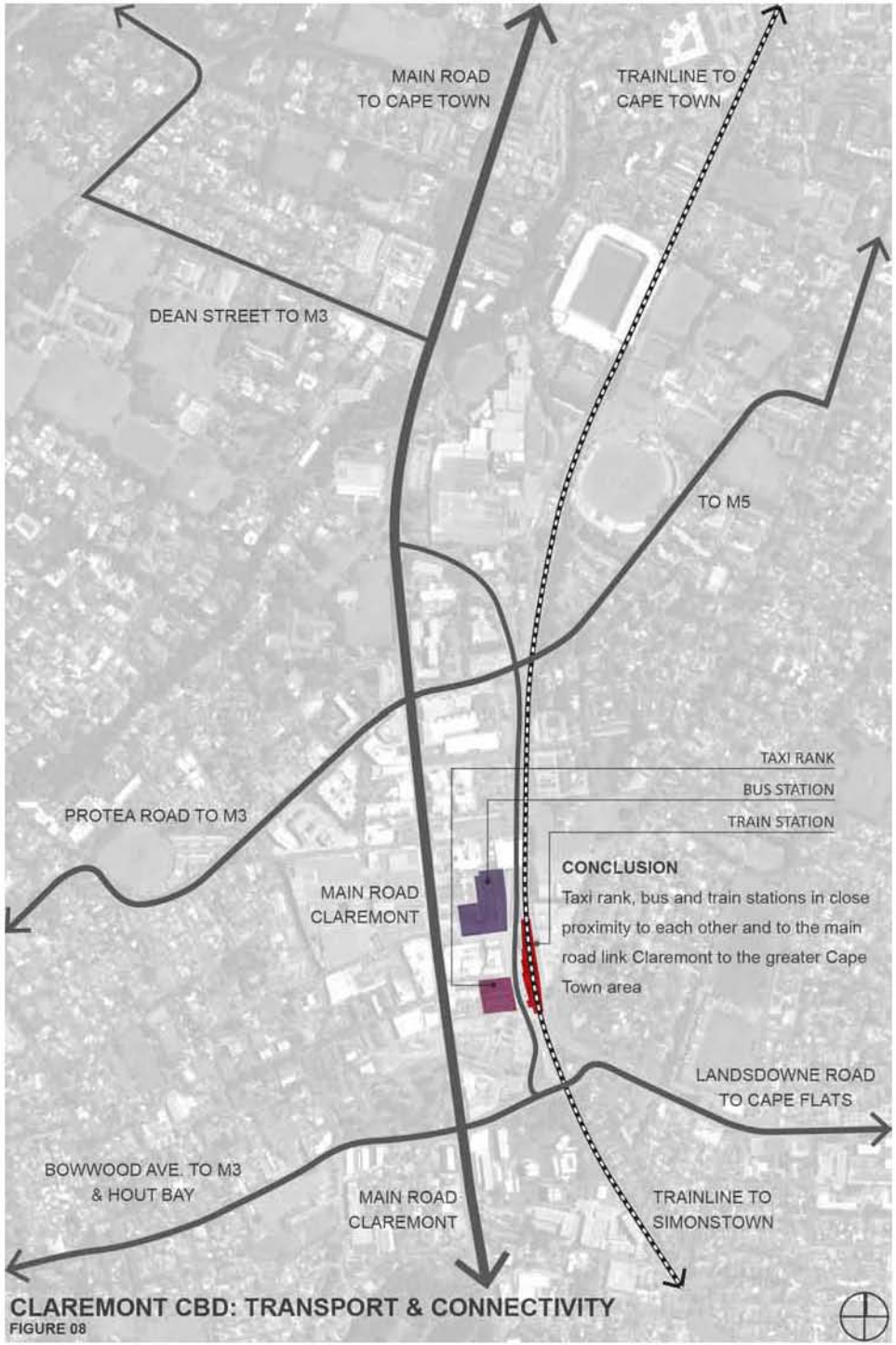
COMMERCIAL

RETAIL

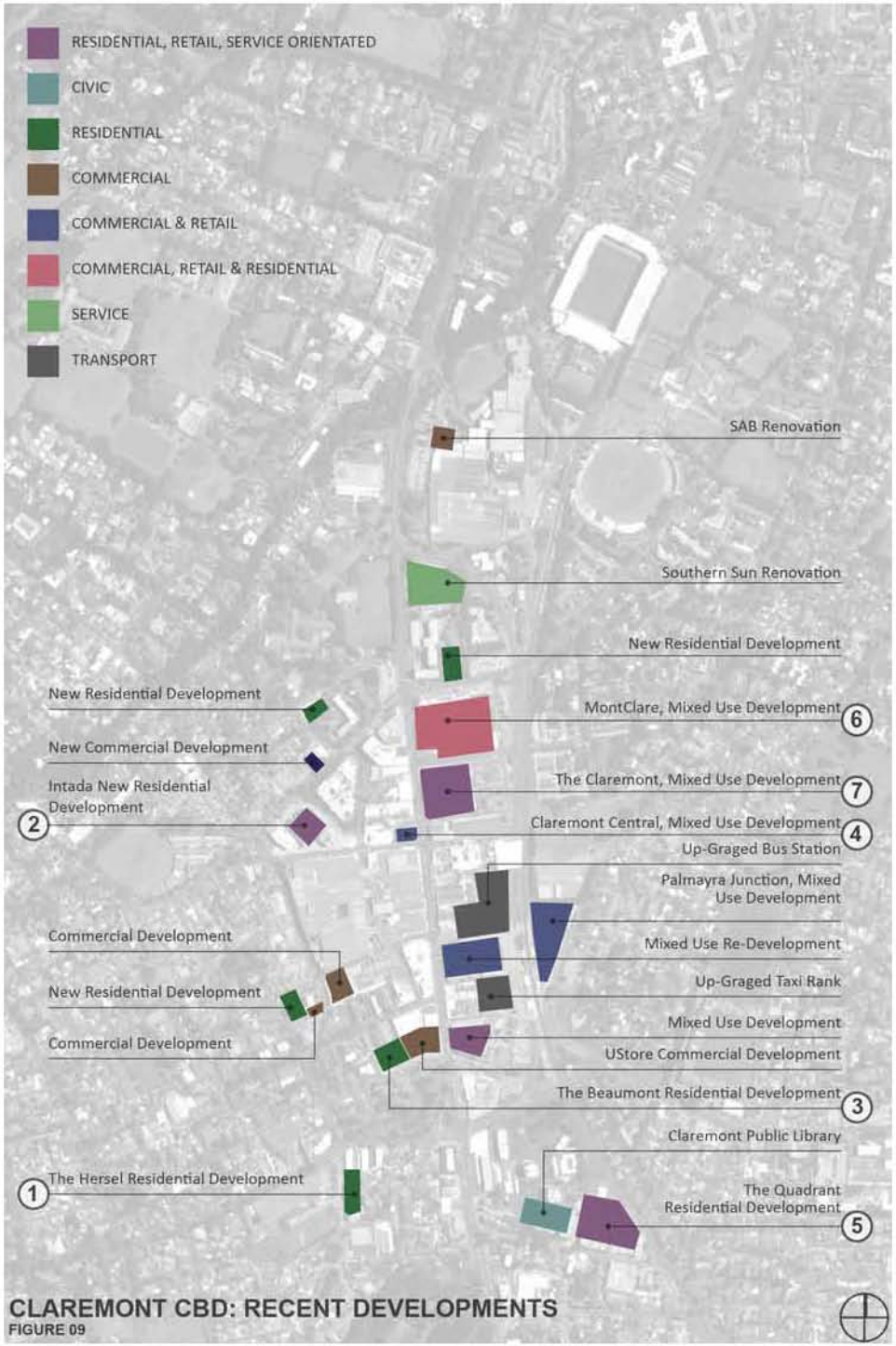
CONCLUSIONS

High concentration of commercial, retail & residential activity along the Main Road strip. Majority of buildings appear to host two or more different types of activity

CLAREMONT CBD: LANDUSE
FIGURE 07



CLAREMONT CBD: TRANSPORT & CONNECTIVITY
FIGURE 08



CLAREMONT CBD: RECENT DEVELOPMENTS
FIGURE 09

THE HERSHEL, PEERUTIN ARCHITECTS, 2009

7-storey Apartment block comprises of 66 Sectional Title Apartments and over 130 parking bays in two basements. The units range in size from 50m2 to about 170m2. These include garden studios at Ground level to 2 and 3 bed penthouses. A rooftop entertainment area and swimming pool complete the offering.
(www.peerutin.co.za, 2013)

R1.1 million for bachelor units
R4m for a north-west facing three-bedroomed penthouse

INTADA, PEERUTIN ARCHITECTS, 2009

Intaba is a residential complex situated in the heart of Claremont's business district. The complex consists of 1, 2 and 3 bedroom units, 2 and 3 bedroom penthouses, a fully equipped private gymnasium, and outdoor swimming pool and secure undercover parking.
(www.peerutin.co.za, 2013)

Since 2003, investors have had returns ranging from 22 to 35%. Rental income on two-bedroomed units can be from R10 000 - R13 000 depending on the position

BEAUTMONT, GORDAN HART ARCHITECTS, 2015

The Beaumont will be a 179 apartment development consisting of studio, 1, 2 and 3 bedroom apartments, all with secure basement parking.
(www.rawson-developers.co.za, 2014)

CLAREMONT CENTRAL, STUDIOMAS, 2009

The 9 storey construction consists of street level retail set below 3 levels of parking created to serve the 5 storeys of 'AAA' grade office space above. Each office plate is approximately 800m² in size, designed for an open plan and cellular organization. Balconies and terraces take advantage of mountain views.
(www.studiomas.co.za, 2014)

THE QUADRANT, DHK, 2010

The construction of the 249 apartment development was split into 3 phases, the first consisting of the first 44 apartments, retail and a lifestyle centre which was completed in December 2008. The second phase consisting of 113 apartments was completed September 2010 and the balance of 92 apartments are still to be constructed.

1 BED – 1 MILLION
2 BED – 2.3 MILLION
(www.dhk.co.za, 2013)

MONTCLARE, DHK, 2009

MontClare Place is the largest mixed-use development in Cape Town's Southern suburbs. This premium grade mixed-use facility comprises of 8 963m² of retail, a state of the art Virgin Active health club of 4 859m², as well as 62 sectional title residential units.
Tenants in the building comprise retail, leisure and offices, while 61 sectional title residential units comprise the east block, all supported by 7 levels of parking.
(www.dhk.co.za, 2013)

THE CLAREMONT, 2004

322 sectional title residential apartments
(www.fpggroup.co.za, 2014)

CONCLUSION:

Majority of new developments are mixed use, retail / commercial take advantage of street level activity while the upper levels are given over to residential or office space while needs more privacy. Land is in demand and more is building is built on less space

CLAREMONT CBD: RECENT DEVELOPMENTS - CONTINUED

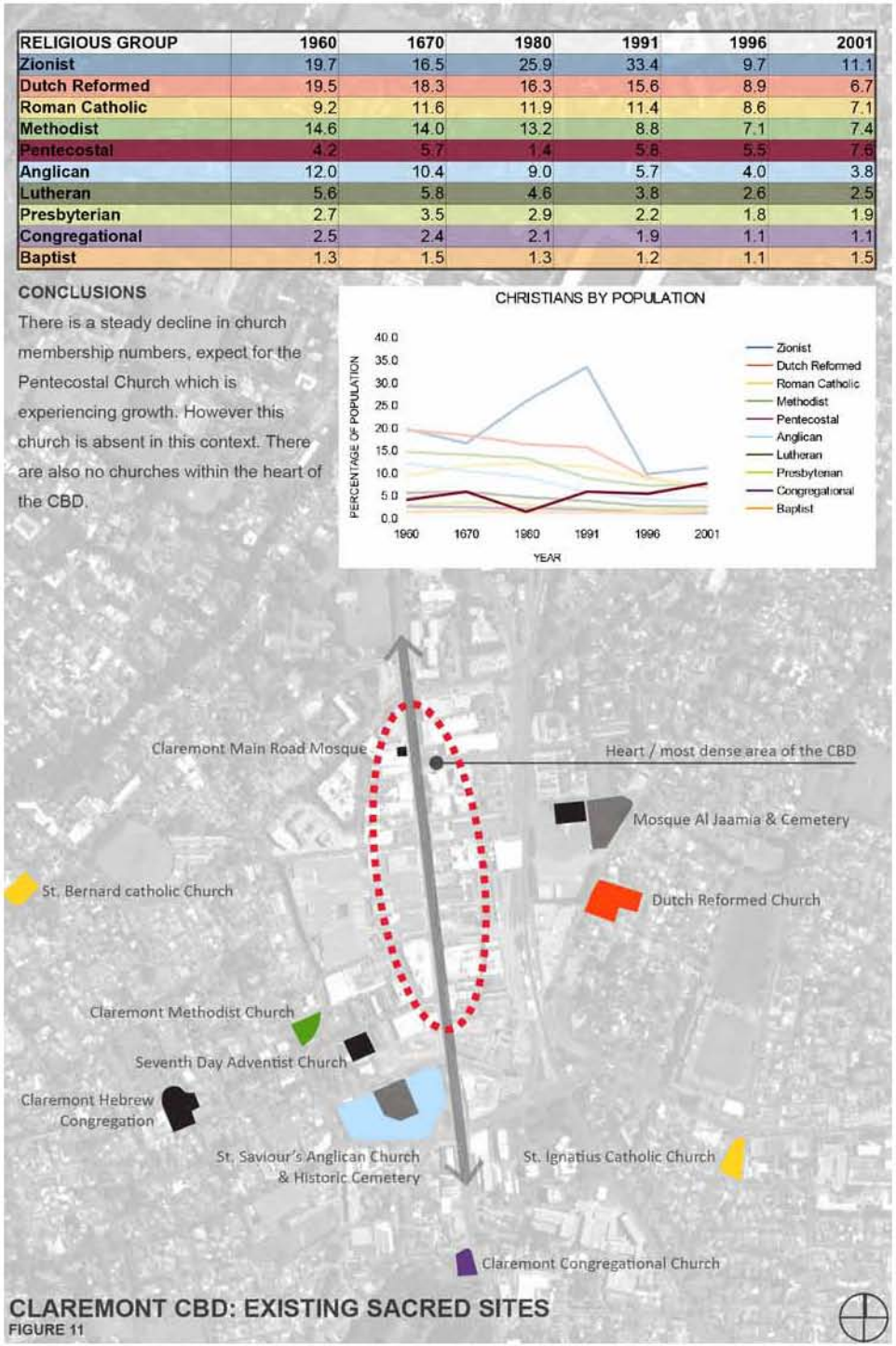
FIGURE 10

5.3. The Urban Church

The idea of the urban church as the project topic is drawn from combining the interest in sacred space with the interest in the area of Claremont. This idea prompted an investigation into the existing sacred sites within the context (see Figure 00). This analysis reveals the absence of the Pentecostal Church which, according to the 2001 Census, is one of the larger and most demographically diverse religious groups in South Africa. In addition the study shows that there are no churches in the heart of the CBD.

A further statistical study reveals that in South Africa church membership numbers are down and according Kritzinger (1994) these numbers have been on a steady decline since 1960. These statistics also show that this decline has affected all the major Christian groups with the exception of the Pentecostal Church which shows a slight growth.

Together the above findings show that there is some validity in the idea of the urban church. Here the idea can develop to take on the role of the Pentecostal Church which is absent in the context. In addition, the urban church can situate itself in the heart of the CBD, where activity is most concentrated and where there are no other churches present. However, having stated that the church is experiencing a decline and that land values and demand are on the rise, this new church will have to ensure that it can survive and exist in this ever growing and diversifying context.

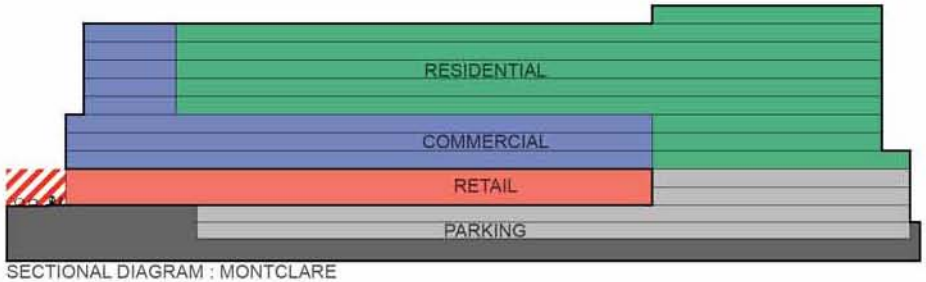


Cross-Programming as a Means of Survival

When looking at the new developments in Claremont the theme of mixed use development is found repeatedly. Here the basic trend is to place retail or service orientated activities on the lower levels which take full advantage of street level activity. Above this the remainder of the building is given over to activities which require more privacy, be it offices of apartments (see Figure 00).

The urban church can learn from this model. Here different activities generate diverse revenue streams, and since church membership is experiencing decline the idea of cross programming the church can open up other revenue streams and reduce the church's reliance on membership contributions.

An additional advantage of diversifying the program are the potential interactions and dialogues that these new programs may help develop between the church and its context. This basic principal of interaction is also found in the area's new developments where retail is placed at street level, here the principal is maximum interaction ensures maximum success. Again this principal should be employed throughout the church and be extended as far as program selection which should be driven to be as relevant to both church and context as possible.

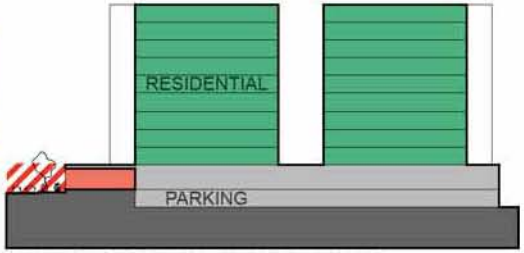


SECTIONAL DIAGRAM : MONTCLARE



STREET INTERFACE : MONTCLARE

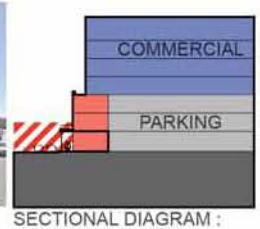

STREET INTERFACE : THE CLAREMONT



SECTIONAL DIAGRAM : THE CLAREMONT



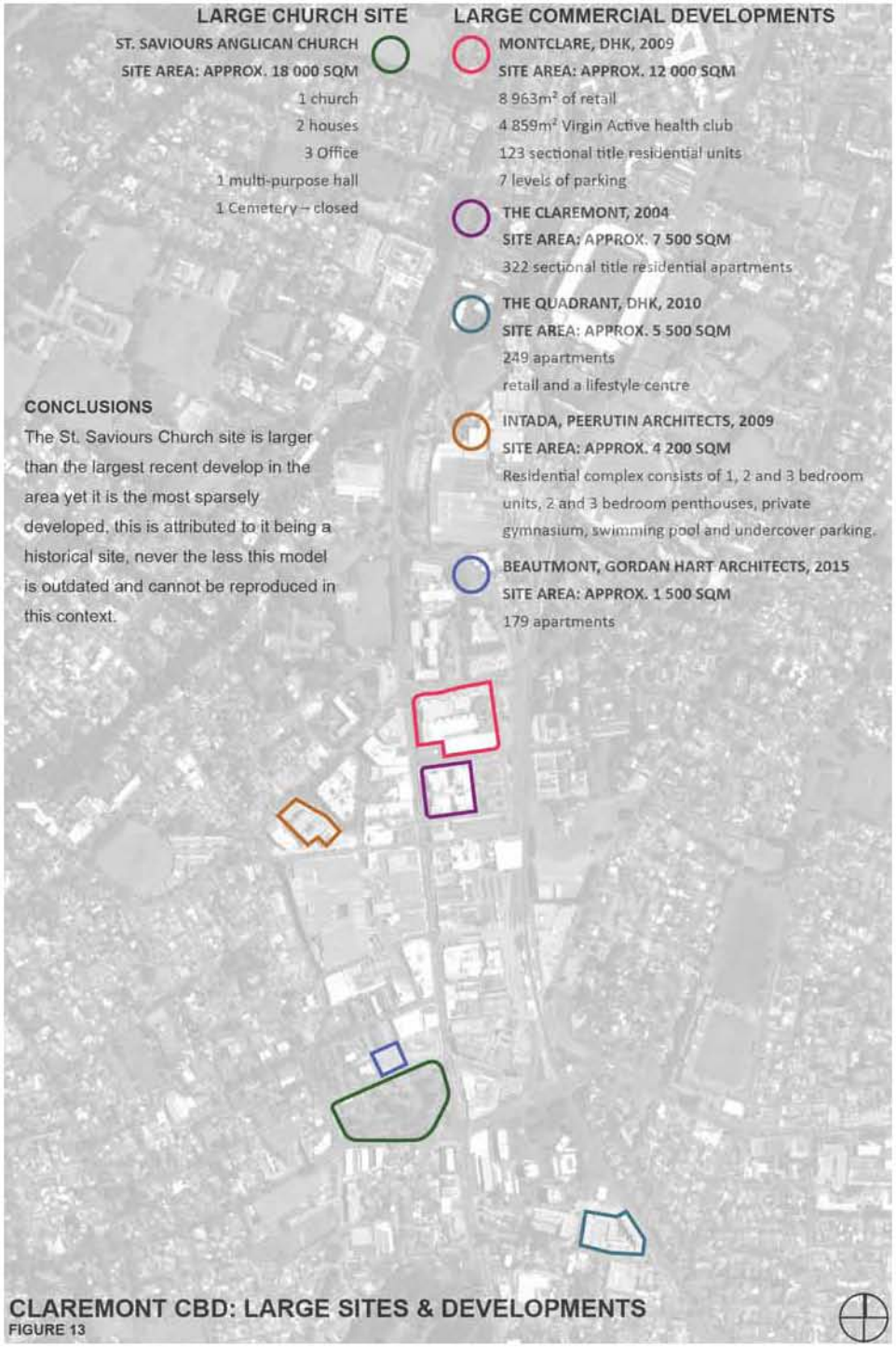
STREET INTERFACE : CLAREMONT CENTRAL



SECTIONAL DIAGRAM : CLAREMONT CENTRAL

CLAREMONT CBD: MIXED USE BUILDINGS ON MAIN ROAD
FIGURE 12

The final argument for cross-programming as a means of survival concerns the availability and use of land. In the past churches were afforded large parcels of land (see Figure 00). Today however, land in Claremont is in demand and the idea of allocating prime real-estate to the church which is in decline is not easily justifiable, let alone feasible. Here additional programming which makes use of the gaps in and contributes towards the contextual programmatic mix can assist in justifying and contribute towards the feasibility of the selection of a site within the heart of the Claremont CBD.



CLAREMONT CBD: LARGE SITES & DEVELOPMENTS
FIGURE 13

6.

THE FUNDAMENTAL ELEMENTS OF SACRED SPACE

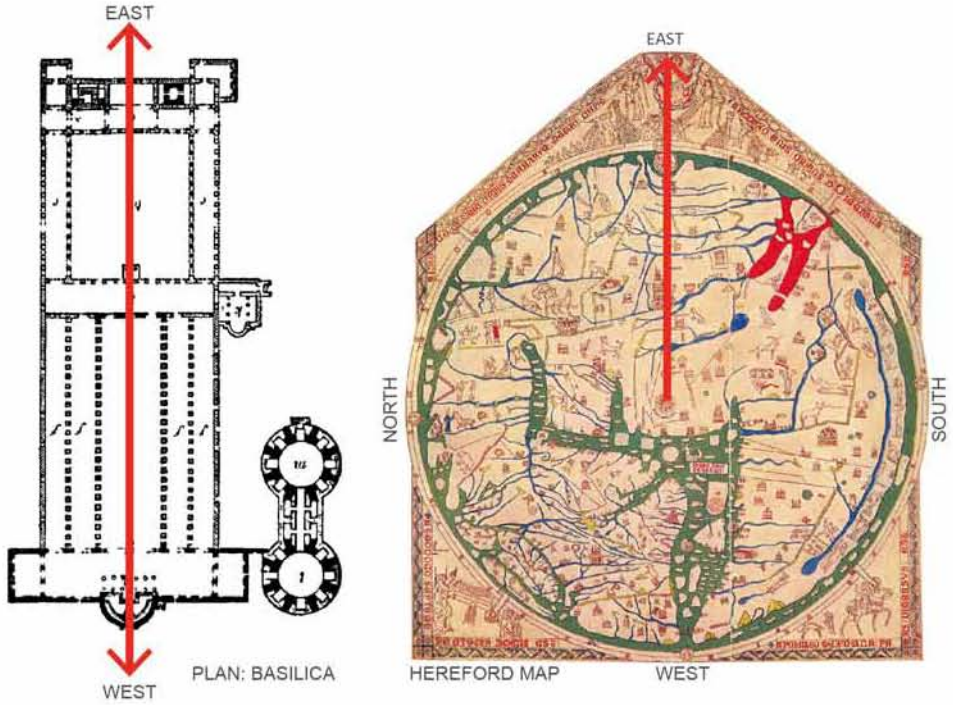
6.1. The East – West Axis and Orientation

Hill (1903) states that early Christian churches adopted the typical plan of the Pagan Roman Basilica. The Basilica is a long hall which runs east to west where it terminates in a raised stage with a canopied apse. The stage area is slightly raised to allow the congregation to view the altar, the proceedings of the bishop and his clergy who sit below, and in emulation of the heavenly scene depicted in the apse vault above.

Kostof (1985) states that this typology served the Christians well as the western ended apse responded well to the liturgical procession of the faithful which climaxed in the sacrament of the bread and wine, which was dispensed by the clergy from the altar. At this stage in Christian liturgy "Church Design" (1967) states that the priest and the image of Christ above faced eastward towards the congregation and the rising sun or Paradise.

This eastern orientation is further developed by the medieval cartographers who produced maps which were not geographically accurate but more importantly portrayed the world as it was commonly perceived or believed to be. In other words these map are representations of the medieval Christian world view.

The Hereford map is one of the largest and most well- known examples of a map from this time. The map is cast in the shape of a circle, it is orientated towards the East, to where the sun rises, and at this uppermost point sits Christ and the city of paradise which is surrounded by walls and a ring of fire. At the exact centre of the map are the circular walls of Jerusalem above which the crucifixion is depicted. Kohler-Ryan (2012) describes this, or Christ, as being the ultimate reference point from which the rest of the world falls into place as a well ordered whole.



EAST - WEST ORIENTATION
FIGURE 14

6.2. Verticality

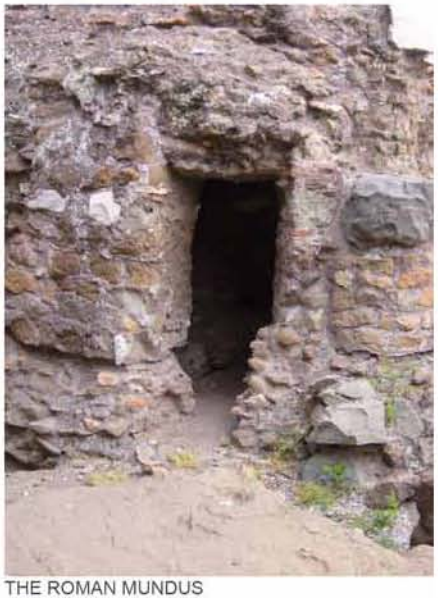
Verticality is universally understood as a representation of the sacred. The symbolism and beliefs associated with verticality may differ from tradition to tradition, however the common theme of linking man to the sky, heavens, Gods or God is always present.

Baldwin & Gillen (1899) state that The Australian Achilpa tribe held the belief that in ancient times the divine being, Numbakula created their territory, their ancestor and their institutions. They believed that Numbakula fashioned a pole from the trunk of a gum tree and after anointing it with blood, placed it between heaven and earth, climbed up it and disappeared into the sky. According to Baldwin & Gillen the nomadic Achilpa carried the scared pole, or the Kauaua, with them and used it as a guide by following the direction of its bend.

Eliade (1957) describes the Kauaua, as a hierophany, which is something in which the sacred is manifest. The verticality is significant as it is what allowed the Being to transcend, it points to the place which the Being ascended to and it is the structure which connects the two cosmic realms. This allowed their world and themselves to have constant communication with the sky into which Numbakula ascended.

In the Pre-Christian Roman world, verticality can be found in a city founding ritual, however in this case it did not facilitate a link with what is above but rather with what is below, never the less the principal is still that same. Wagenvoort (1956) states the Mundus is an artificial, or urban substitute for naturally occurring entrances into the underworld. It was essentially a deep pit which is dug down to bedrock then covered by a stone. The pit is dug at the centre and as part of the ceremonial founding of a new city. In the initial ceremony the settlers threw clods of earth from the surrounding land into the pit, this is done as an act of magic in which the new city would be in possession of the surrounding land. Along with the earth clods, fruits were also thrown into the pit, this was done as an offering of atonement to the spirits of the lower regions for man's disturbance of the earth by the construction of the new city.

ACHILPA & THE KAUAUA



THE ROMAN MUNDUS

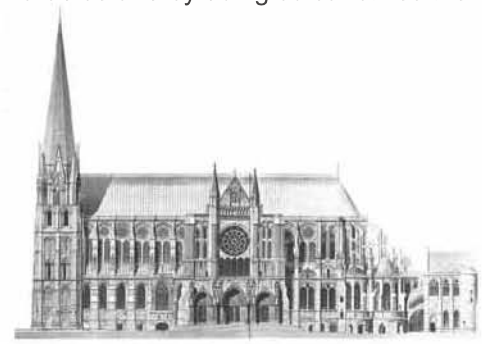
EARLY VERTICAL STRUCTURES
FIGURE 15

In the final example, verticality is exemplified in the Gothic merger of verticality and light in which the ethereal is revealed to bring about sanctification of the world. Augustus Pugin (1836), as summarized by Heathcote and Spens (1997), argues that the Gothic style is derived as a desire to build upwards, towards and for God and that this verticality is an emblem of the resurrection. Kostof (1985) also states that at the famous cathedral school of Chartres, light was taught to be regarded as the noblest of all natural phenomena, the least material and the closest approximation to pure form. Kostof also states that this new emphasis on light is what distinguished Gothic architecture theoretically and aesthetically from preceding styles and is what attributed to the church building as being a representation of heaven or of the city of God on earth.

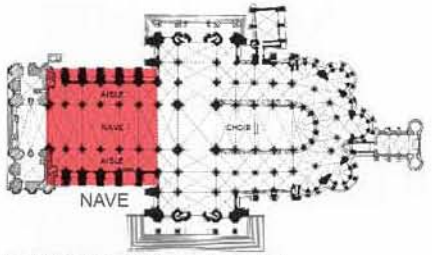
Here the image of heaven must not be mistaken for an all illuminated and bright construction. It must be thought of by what is described in the passages of St. John's Apocalypse as a gem encrusted, translucent and shining vision, which as stated by Kostof (1985) is what the cathedrals of the Ile-de-France set out to celebrate.

The above ideas of verticality and light can be further investigated by an examination of the nave at the Chartres cathedral. This space is made up of 6 bays, each of which is capped by a lofty ribbed groin vault that steadies itself on elegant shafts. The shafts run down through a clerestory consisting of a large rose and two full lancet windows, a blind triforum and come to rest on piers which are composed of four slender colonettes attached to alternating cylindrical and octagonal cores.

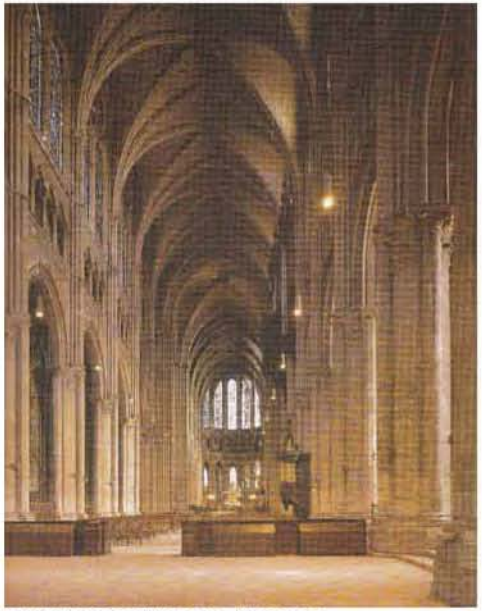
Here the tall bulk denying structure combined with the deep, rich and jewel-like transparent light presents the cosmic dimension of verticality and brings a new interpretation to the phenomena of light. Both the vertical dimension and the element of light are fundamental to the Christian faith. Here the structure reaches up to gather light and in doing so forms a spatial unity that brings the vision of heaven down to man, or as Eliade (1957) describes it, it reproduces Paradise and by doing so sanctifies the world of man.



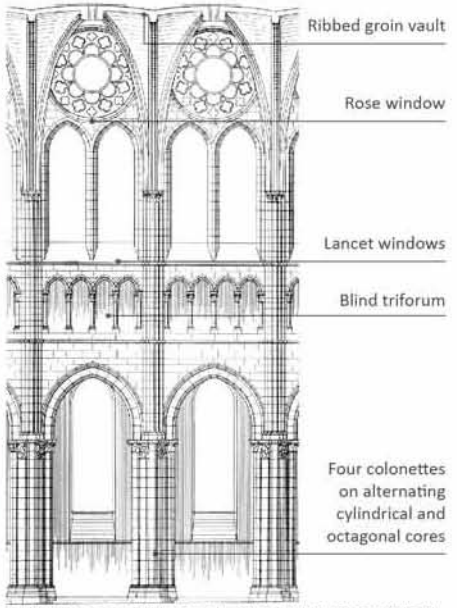
CHARTRES CATHEDRAL: ELEVATION



CHARTRES CATHEDRAL: PLAN



CHARTRES CATHEDRAL: INTERIOR



CHARTRES CATHEDRAL: INTERNAL ELEVATION

VERTICALITY: CHARTRES CATHEDRAL

FIGURE 16

7.

URBAN MAPPINGS & EXPLORATIONS TO INFORM PROGRAM

7.1. The Development of Pentecostal Church

An analysis which compares the operating practises of the Common Ground Church in Rondebosch, which is an example of a successful Pentecostal church, to the St. Saviours Anglican Church in Claremont reveals discrepancies in programming, frequency of use and operating hours (see Figure 00).

The Common Ground Church distinguishes itself by including an independent coffee shop which is open to the public seven days a week. This church also hosts a variety of meetings which target different ages, sexes and life stages of its congregation. In addition the meeting schedule makes more efficient use of the church's main space as meetings are planned to take place throughout the week.

The Common Ground Church may have better operating practices however when viewing this building from the outside it is not clear that it is a church. Equally uninspiring is the main space which is more comparable to a generic multi-purpose hall than a church. In contrast the Anglican church building is far more legible, this may be a historic building but it is undoubtedly a church and the interior is equally impressive as its beautiful and careful detail gives the parishoner a rich spatial experience.

This analysis develops the argument for cross-programming the church by showing that the Rondebosch church has done this to some extent and success with the coffee shop. Here two additional objectives are added the urban church. Firstly the church's main space should combine the spatial experience found in the Anglican church with the multifunctional aspects of the main space in the Rondebosch church. And secondly the new church should be able to externally communicate its spiritual nature, in a similar way that the Anglican church does but perhaps in a more contemporary, relevant and contextual manner.

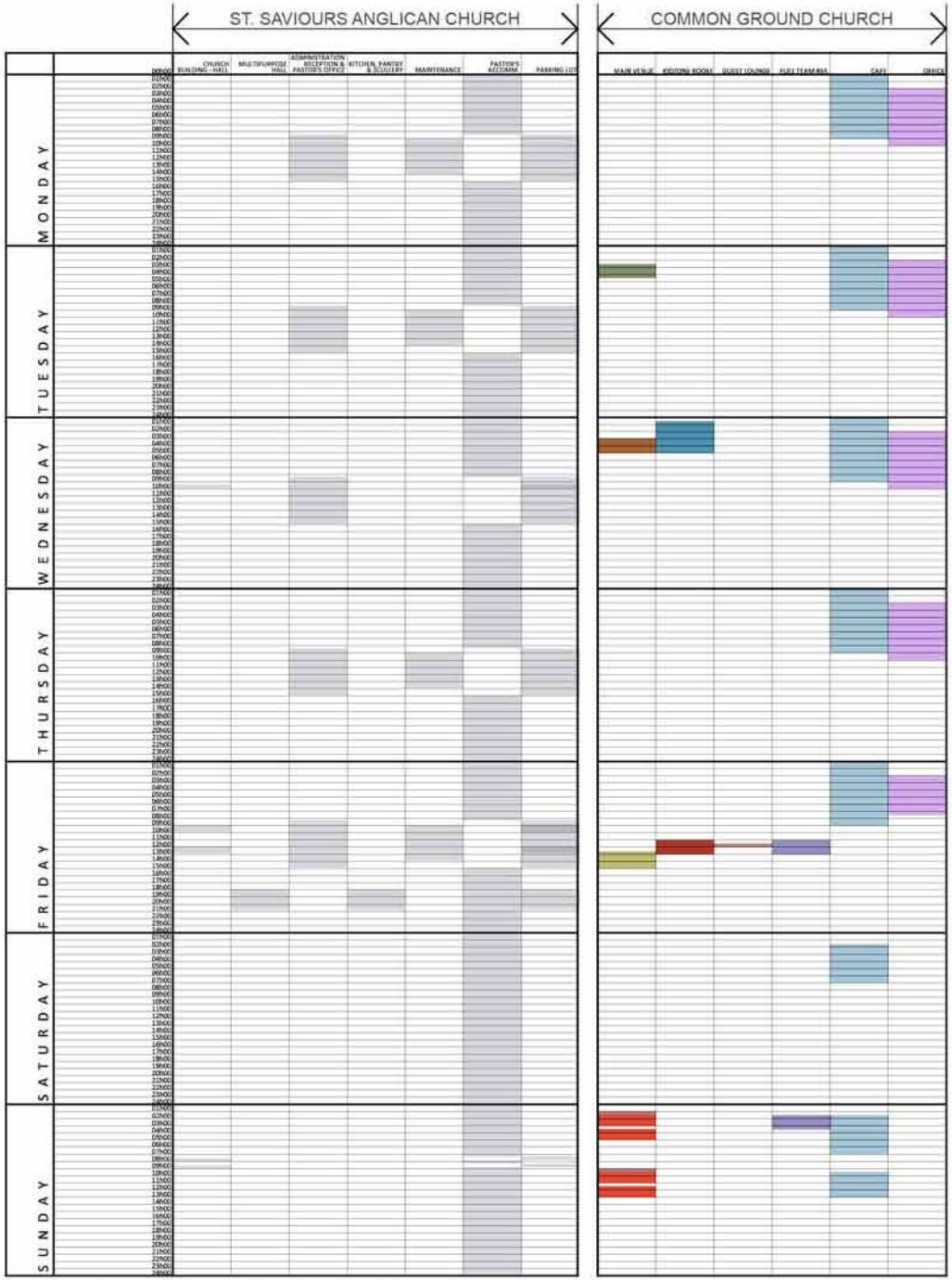
ST. SAVIOURS CHURCH

ST. SAVIOURS CHURCH
MAIN SPACE

COMMON GROUND CHURCH

COMMON GROUND CHURCH
MAIN SPACE

ANGLICAN vs PENTECOSTAL CHURCH: BUILDINGS
FIGURE 17



ANGLICAN vs PENTECOSTAL CHURCH: TIME vs ACTIVITY
FIGURE 18

COMMON GROUND CHURCH
ACTIVITY KEY

SUNDAY SERVICE
- 8:30am, 10:30am, 4:30pm & 6:30pm
- Main Venue

PRAYER MEETINGS
- Sundays at 8:10am & 4pm, Guest Lounge
- Fridays 6:30pm, Foyer

FREQUENCY
- High school learners from Gr 8 -12
- Meets on Fridays 7:30 – 10pm & Sundays 10:30am – 12pm
- Main Venue

IGNITE
- Learners from Gr 6 – 7
- Meets on Fridays 6 – 8pm & Sundays 8:30 – 10:30am
- Between Kidzone & Fuel Team

KIDS ROCK
- Children from 1, 5 years old – Gr 5
- Meets Sundays 8:30 & 10:30
- Kidzone Room, opposite Main Venue

SENIORS
- For Senior Citizens
- Meets on Wednesdays 10am – 12pm
- Main Venue

MOM-COM
- For Moms and their small children
- Meets Wednesdays 9:30 – 12pm
- Kidzone Room, opposite Main Venue

WOMEN'S BIBLE STUDY
- For Women of all ages
- Meets Tuesdays 9:30 – 11:30am
- Main Venue

COMMON GROUND CAFE
- Mondays to Fridays, 7am – 4pm
- Saturdays, 8am – 2pm
- Sundays, 8:30 – 2pm & 4:30pm – 8pm

OFFICE HOURS
- Mondays – Thursdays, 9am – 5pm
- Fridays, 9am – 2:30pm

OTHER SEMINAR TYPE COURSES / MEETING HELD THROUGH OUT THE YEAR
- Men's Ministry – Annual breakfast
- Marriage Enrichment Course – 3 to 4 times yearly, Main Venue
- Pre Marriage Course – 3 times yearly, 1 night a week for 4 weeks, Main Venue
- Grief & Loss Groups, times and venues undisclosed
- Setting Boundaries Groups, times and venues undisclosed
- Recovery for Divorce and Separation Course, once yearly, 24 April – 12 June
- Beyond Abuse, 6 – 8 week course, once yearly, 24 April – 12 June

CONCLUSIONS

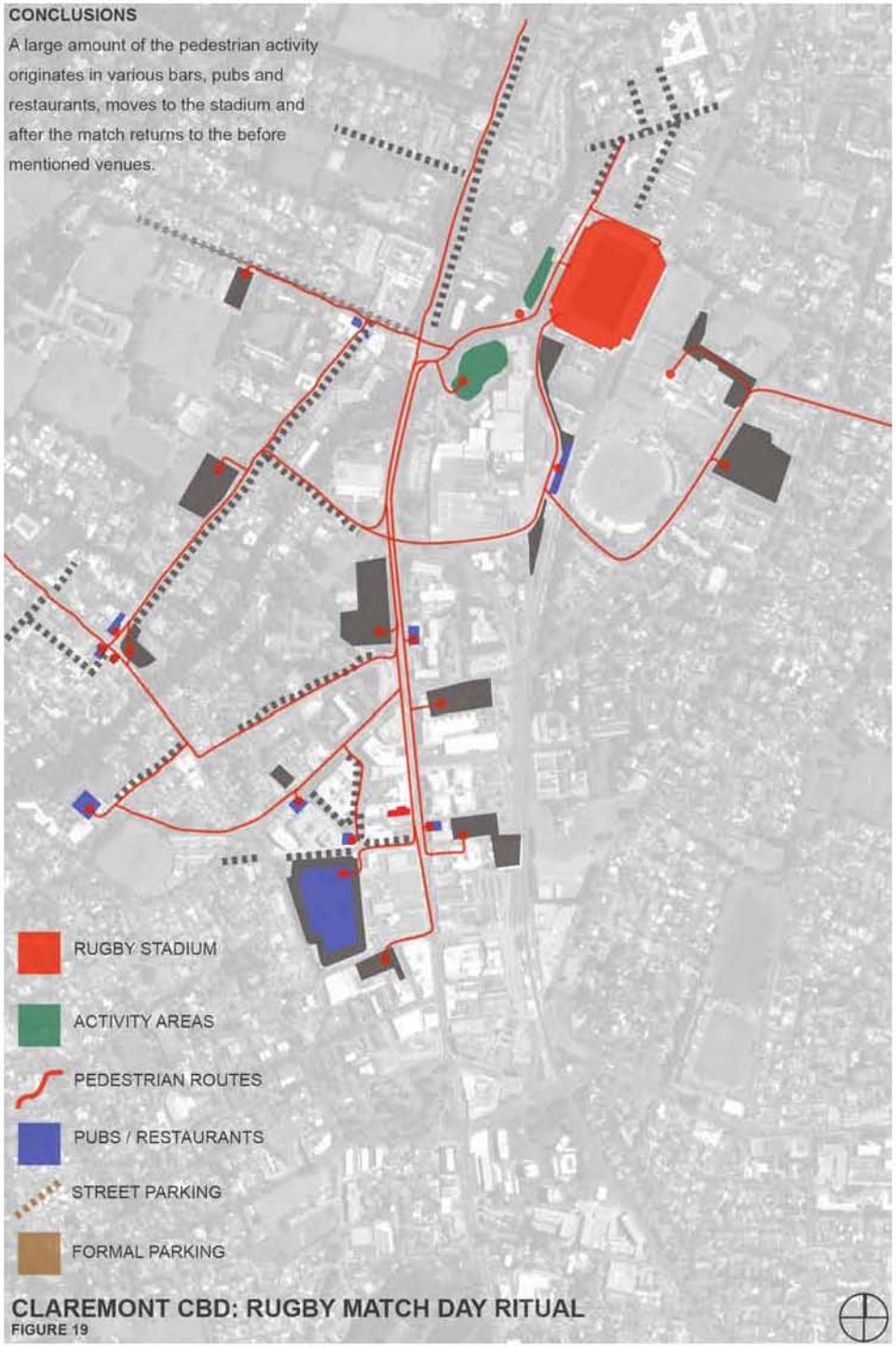
The Common Ground Church offers greater diversity in terms of activities and program. Additionally the main space is used for a variety of meetings, however this space is bland and does not communicate the fact that it is a church. In contrast the Anglican church presents the parishioner with a rich spatial experience

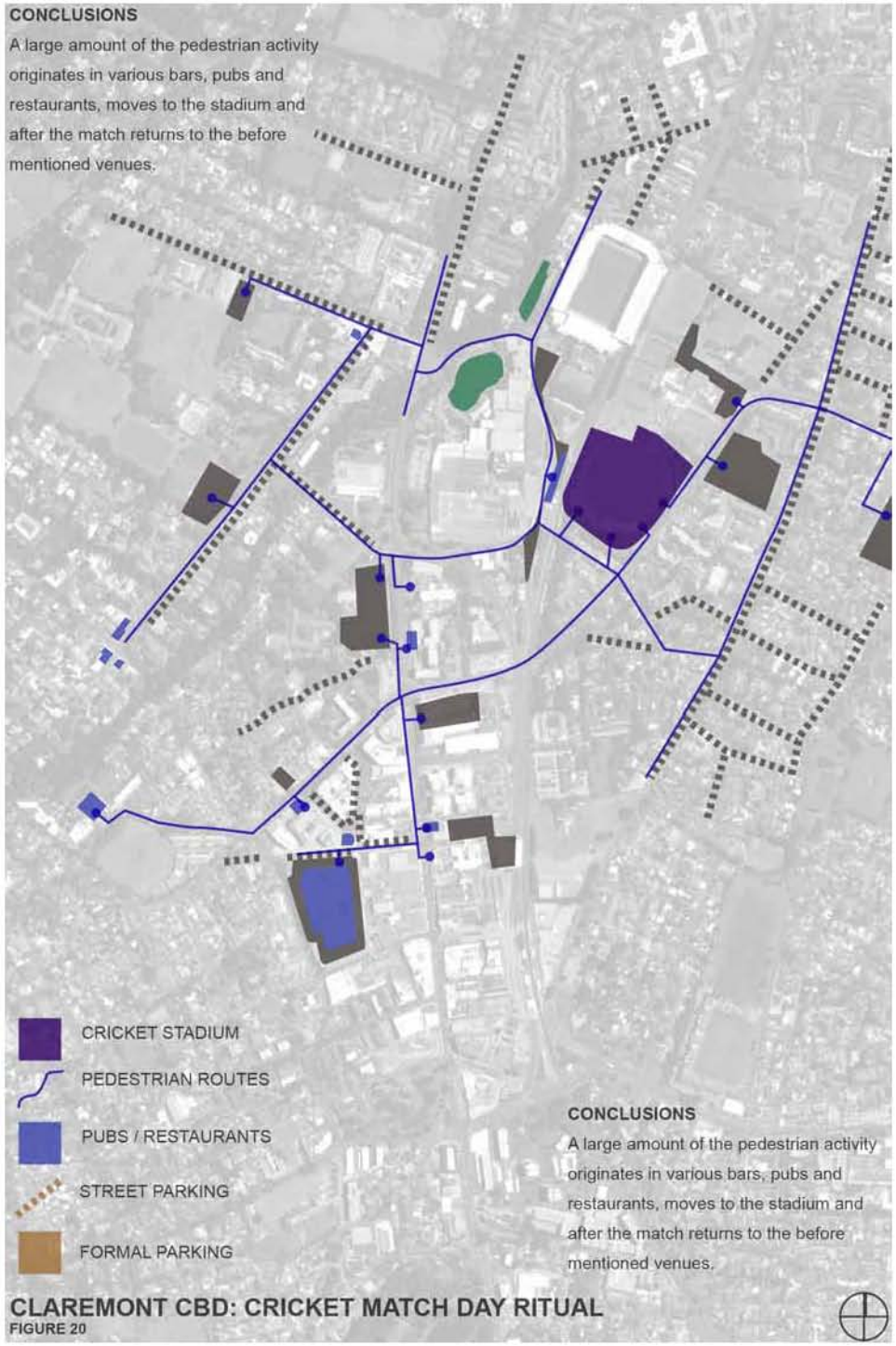
7.2. Urban Rituals

The idea to look for urban scale rituals or patterns is developed from the above analysis of sacred sites found within the Claremont area. This analysis looks to discover urban scale rituals and then seeks to find links and relationship between them.

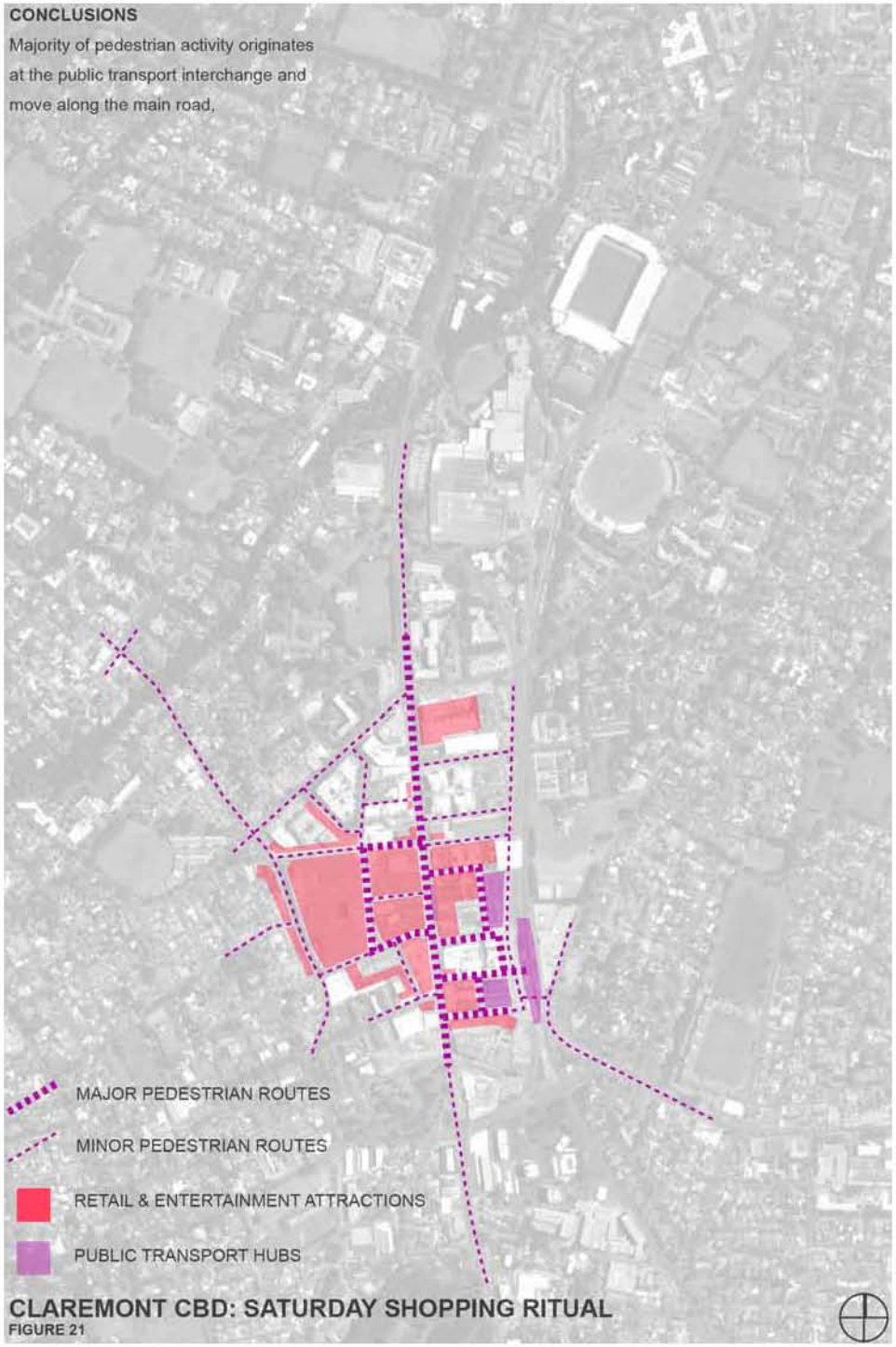
Here four rituals are discovered, they are: the rugby and cricket match day ritual; the Saturday shopping ritual and the night on the town ritual (see Figures 00 – 00). When these mappings are overlaid and compared against each other (see Figure 00) two clear relationships are discovered. The first is that all of these make use of Main Road space, here pedestrians move back and forth between bars, nightclubs, shops and to and from stadiums. And the second link that appears is that bars, restaurants and nightclubs in the area appear in both match days and the night on the town rituals. On match days pedestrian activity often originates and returns to these establishments after the match event.

This set of mappings and conclusions lays the basis for the following arguments of site selection, the development of the church space to function as a nightclub and for the inclusion of a backpackers into the program mix.

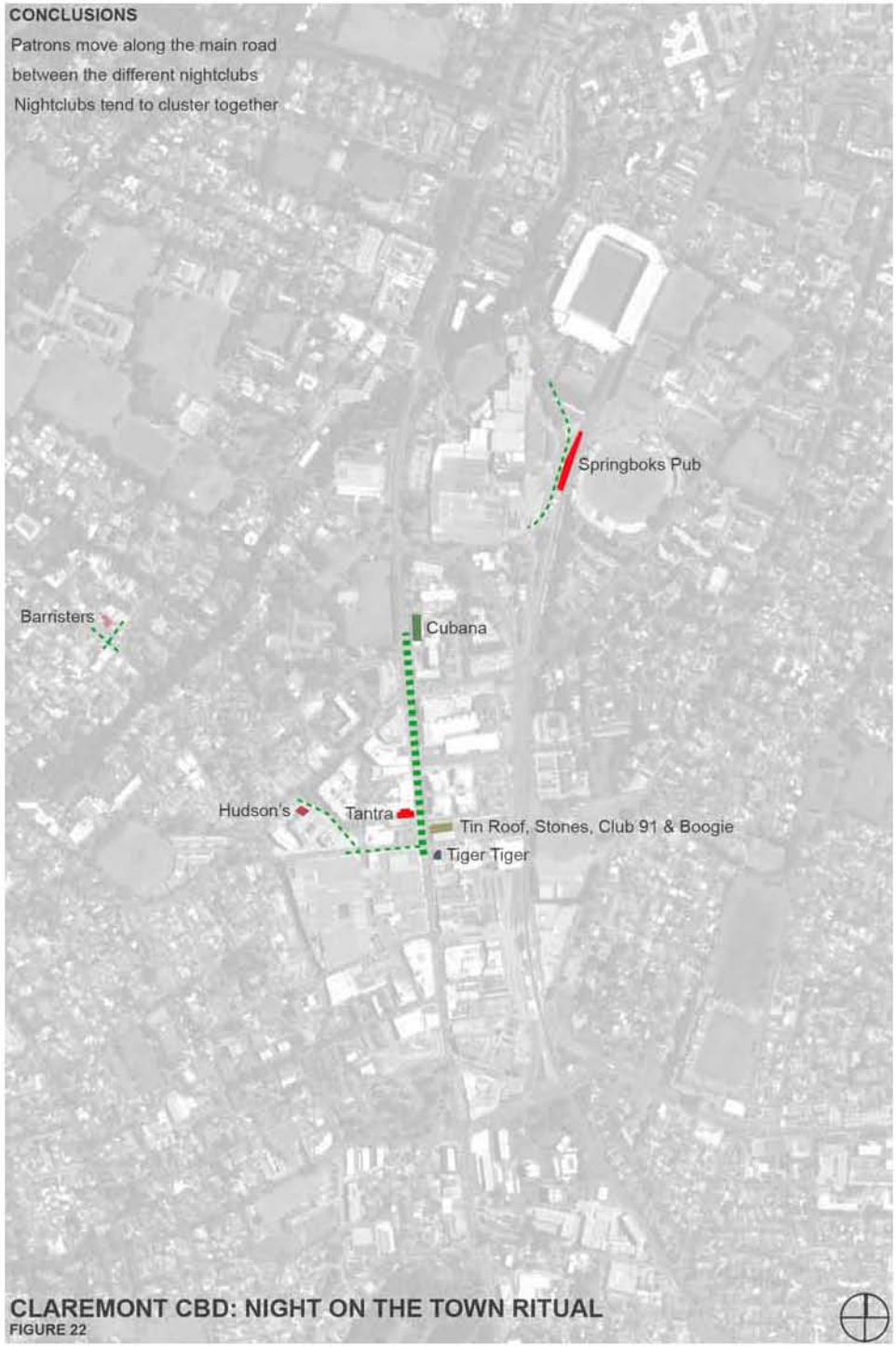




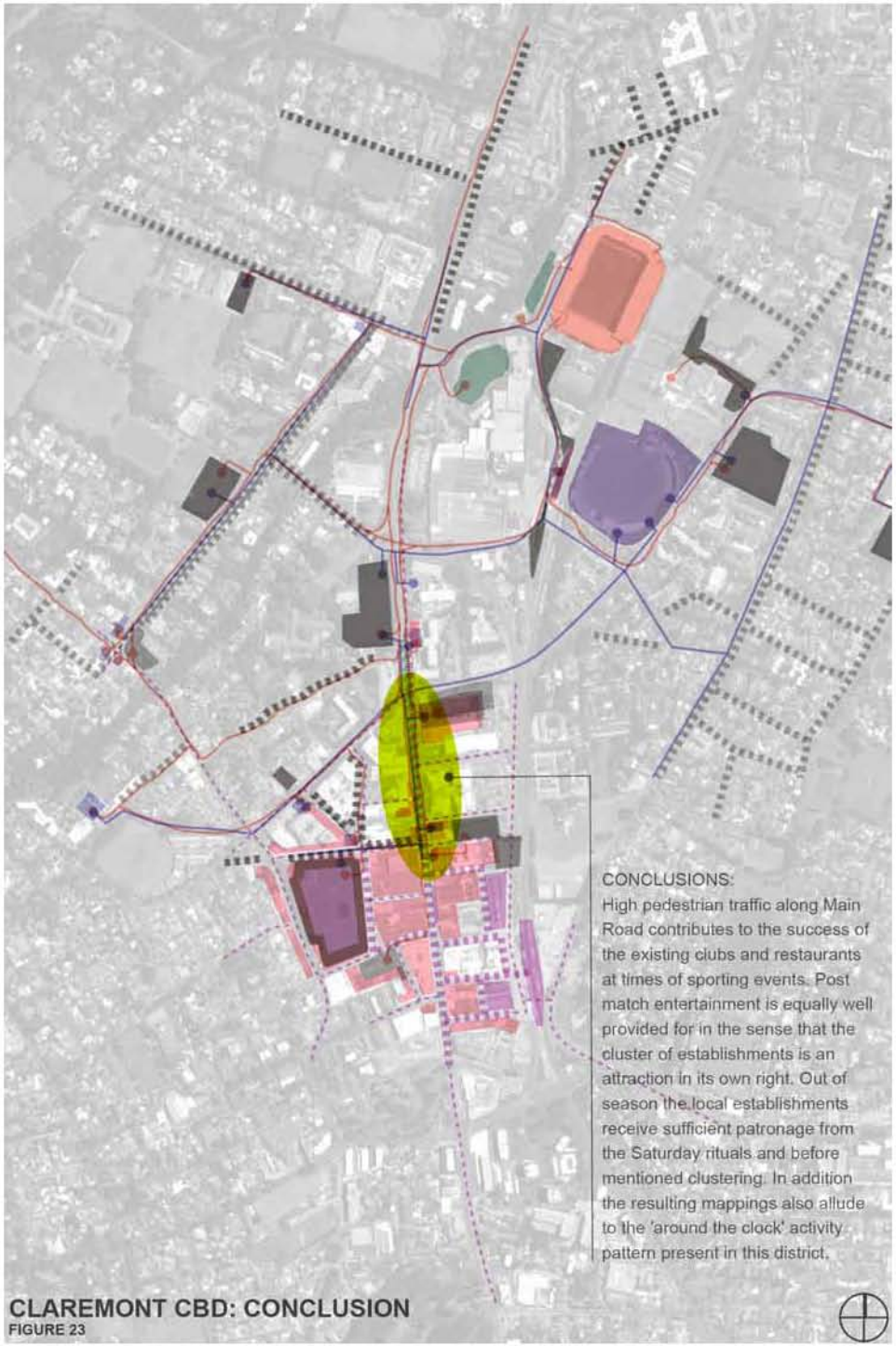
CLAREMONT CBD: CRICKET MATCH DAY RITUAL
FIGURE 20



CLAREMONT CBD: SATURDAY SHOPPING RITUAL
FIGURE 21



CLAREMONT CBD: NIGHT ON THE TOWN RITUAL
FIGURE 22



CLAREMONT CBD: CONCLUSION
FIGURE 23

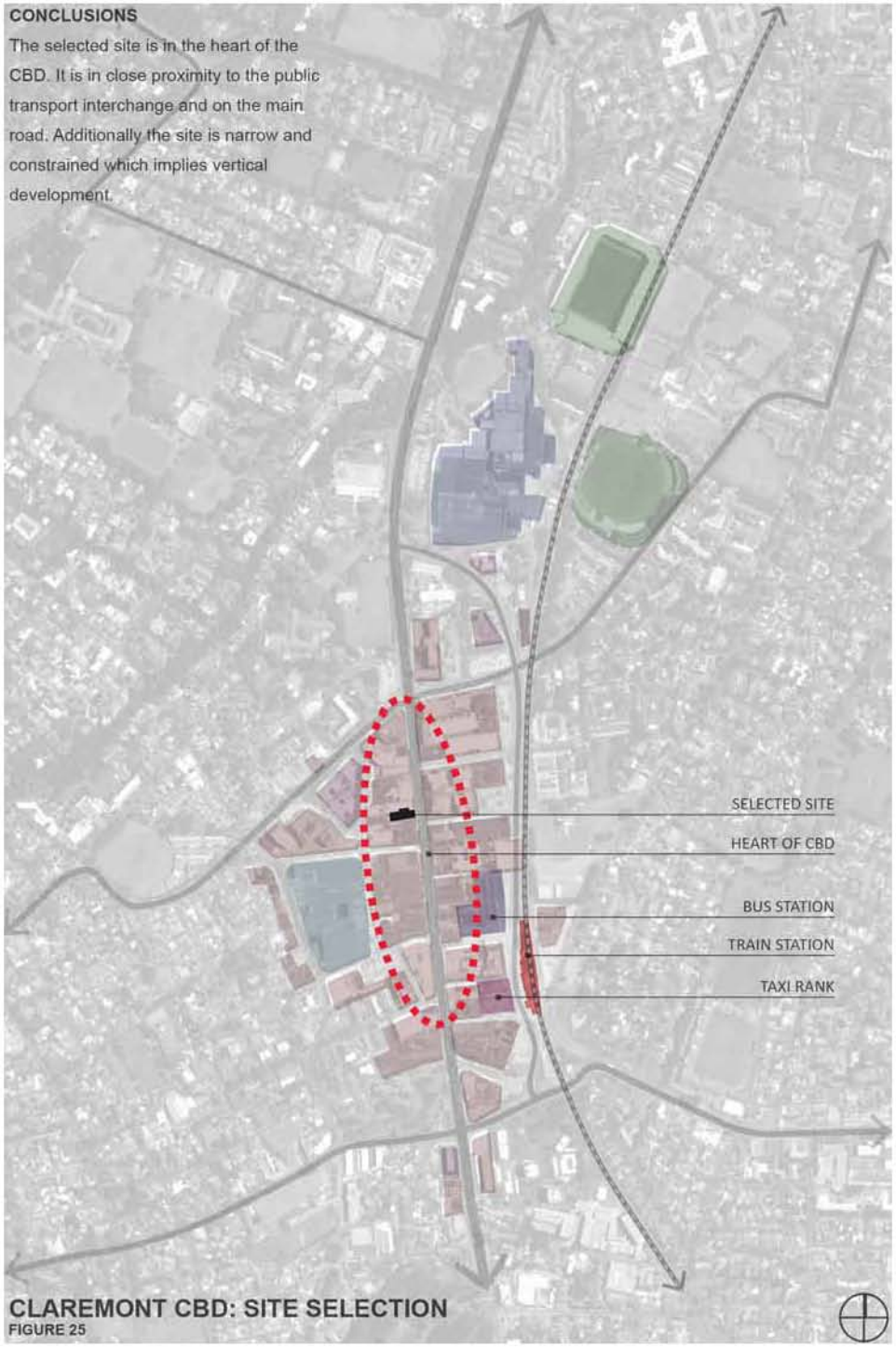
7.3. Site Selection

The site that stands out is a narrow, deepish mid-block type site which is situated on the Main Road in the heart of the Claremont Central Business District (see Figure 00). This site is constrained which implies vertical development. In addition this site is in walking distance to many nightclubs in the area, to both the stadiums and to the public transport interchange. Currently the building on this site is unused and awaiting redevelopment, it was previously occupied by two nightclubs, one on each level which implies that it has some success in this regard.

MAIN ROAD CLAREMONT

MAIN ROAD CLAREMONT

CLAREMONT CBD: SITE SELECTION
FIGURE 24



CLAREMONT CBD: SITE SELECTION
FIGURE 25

7.4. The Nightclub & the Church

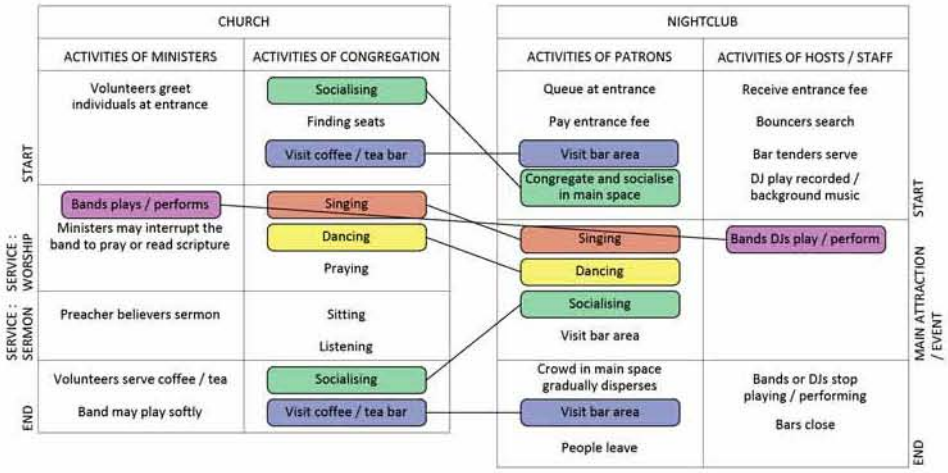
The idea for introducing the nightclub into the program mix is developed out of the above argument for the cross programming of the urban church. In the above it is argued that new and diverse programming will generate diverse revenue streams, assist the church in fostering greater interactions with its context and justify land use by incorporating programs that fill gaps within, or build on the existing contextual programmatic mix.

The possibility and probability for the nightclub to contribute towards the church's revenue stream is self-evident. In terms of interactions, the idea of opening up the church to full unrestricted and uninhibited public access will hopefully change the perception of the church institution and perhaps make or change its appeal to groups of people who would normally not find it appealing.

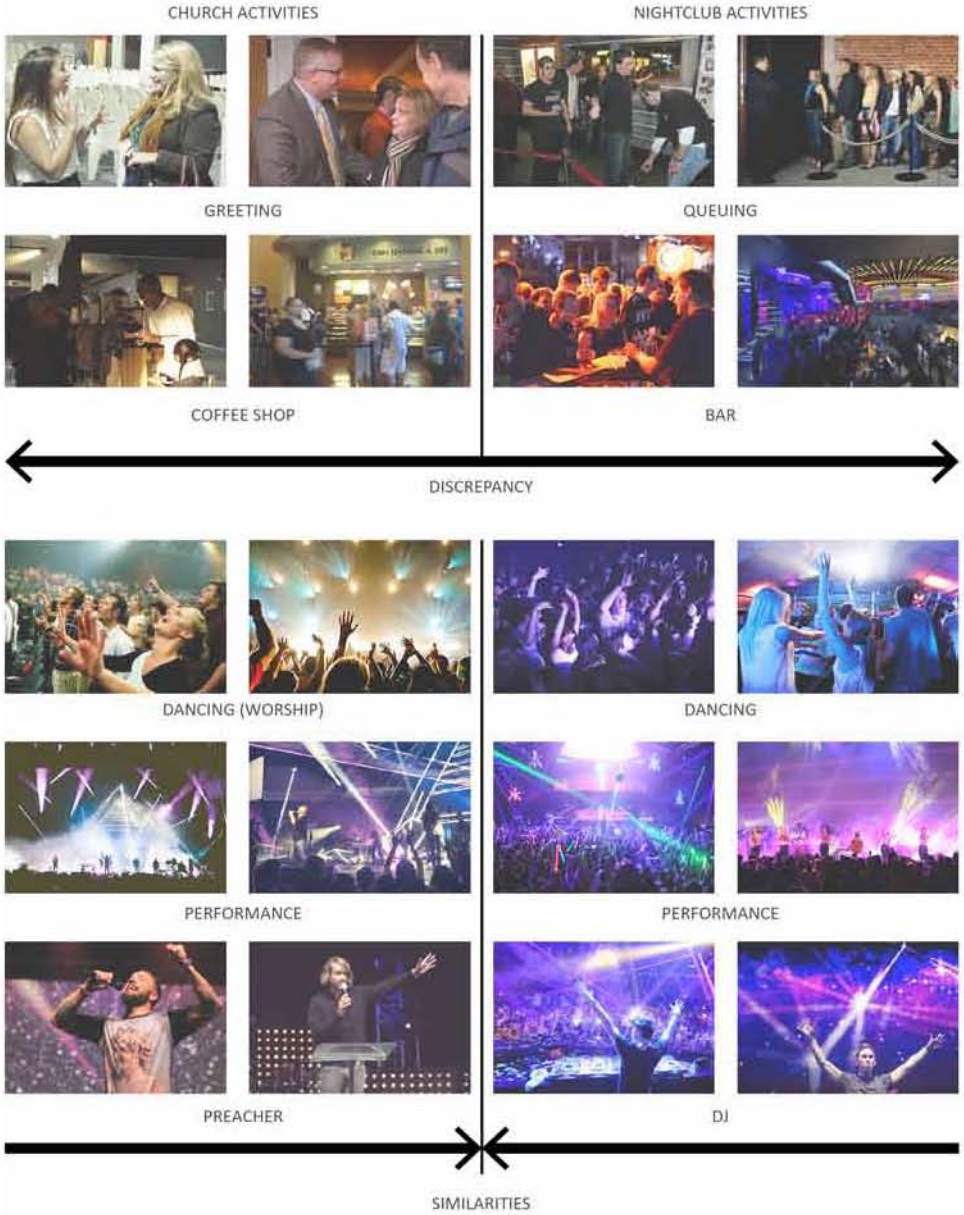
The third argument for building on the contextual mix is further developed by the above night on the town study. Here it makes sense to locate a new nightclub in close proximity to other existing nightclubs as these tend to feed off one another as patrons move from club to club as the night progresses.

The fourth and final argument grows out of a study in which the activities of pentecostal church services are compared with the activities of a typical night in a nightclub (see Figure 00). Here a case is built for the church and the nightclub to share the same space. Intuitively these are viewed as polar opposites, but an enticing and interesting concept arises when the combination of the church – club is imagined.

The comparison shows that there are a number of activities that are common to both church and club. The most obvious is the singing, dancing and socialising. What is most striking is the strong performance or event aspect of the pentecostal church service, which is common place in nightclubs, and when looking at the photographs it is not clear which is the church or which is the nightclub. In conclusion there are differences within each program, such as being greeted at church versus being frisked by bouncers and paying an entrance fee and the bar vs. the coffee shop. But on the whole there are enough similarities to purse the idea of the nightclub and church sharing the same space.



CHURCH vs NIGHTCLUB ACTIVITY COMPARISON
FIGURE 26



CHURCH vs NIGHTCLUB ACTIVITY COMPARISON
FIGURE 27

CONCLUSIONS

The analysis shows some discrepancies between activities such as queuing as opposed to being greeting and the there is a difference between the coffee shop and the bar.

More interestingly there are some striking similarities, dancing occurs in both church and nightclub, the preacher leads the service in the church and the DJ leads the night in the night club additionally there is are strong performance aspects in both.

7.5. The Coffee Shop & the Crèche

The inclusion of a coffee shop into the programmatic mix can be simply argued for by pointing out that the site is in a good location to attract pedestrians, additionally this aspect of the program will open up opportunity for direct interaction with the public realm. The idea here is to follow the Common Ground model and design this program to operate independently.

The crèche is simply an extension of the church's Sunday school. Here again this program can be designed to operate independently, additionally there is potential for this program to help foster interaction between the public and the church.

7.6. The Backpackers

In the match day ritual mappings it can be seen that the stadiums host local and international matches. High profile matches can attract people from as far away as Hermanus, Johannesburg and overseas, which leads to the investigation and mapping of short term accommodation in the area (See Figure 00). This points to a gap in the market for budget accommodation.

The argument for the backpackers is made by the discovered gap in the market, in addition to serving the match day and subsequent night on the town rituals, backpackers are generally found to be grouped in clusters, similar to nightclub clustering. This is apparent when looking at the cluster of nightclubs and backpackers' in Lower Main Road in Observatory. Here Nightclubs and backpackers seem to feed off one another. And lastly the backpackers' can provide accommodation for out-of-town church goers who come for conferences, events and seminars that the church itself may host.

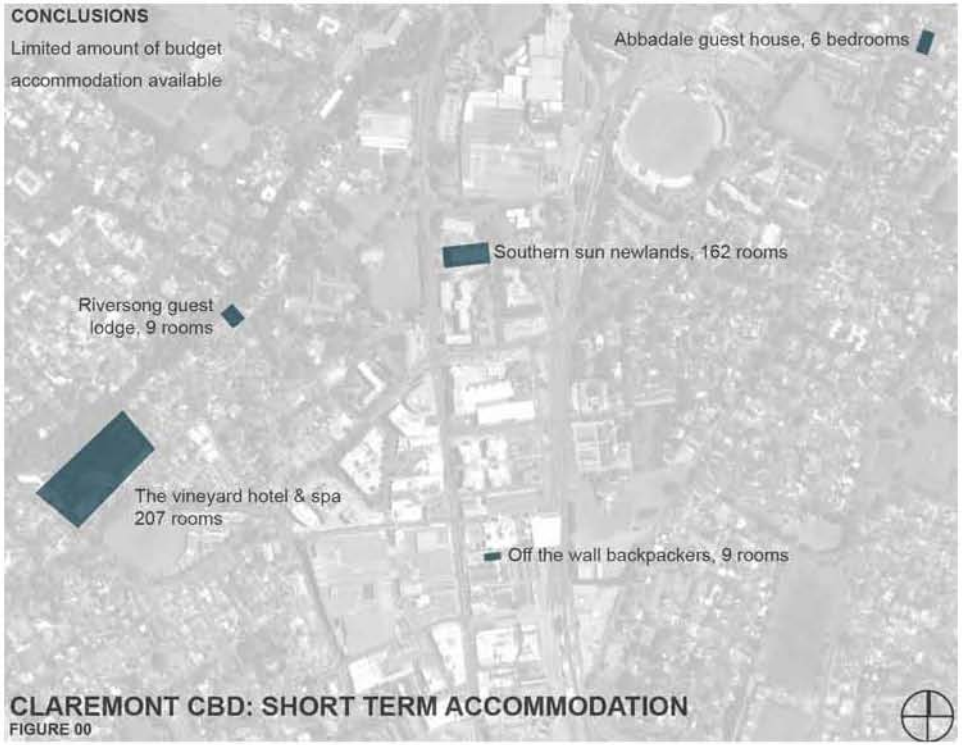


FIGURE 00

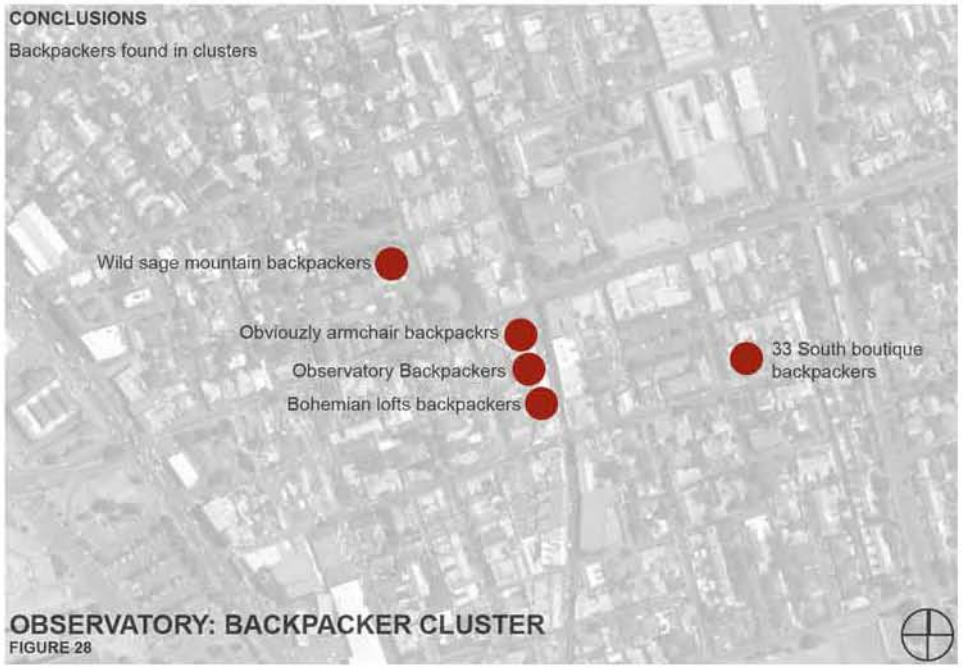


FIGURE 28

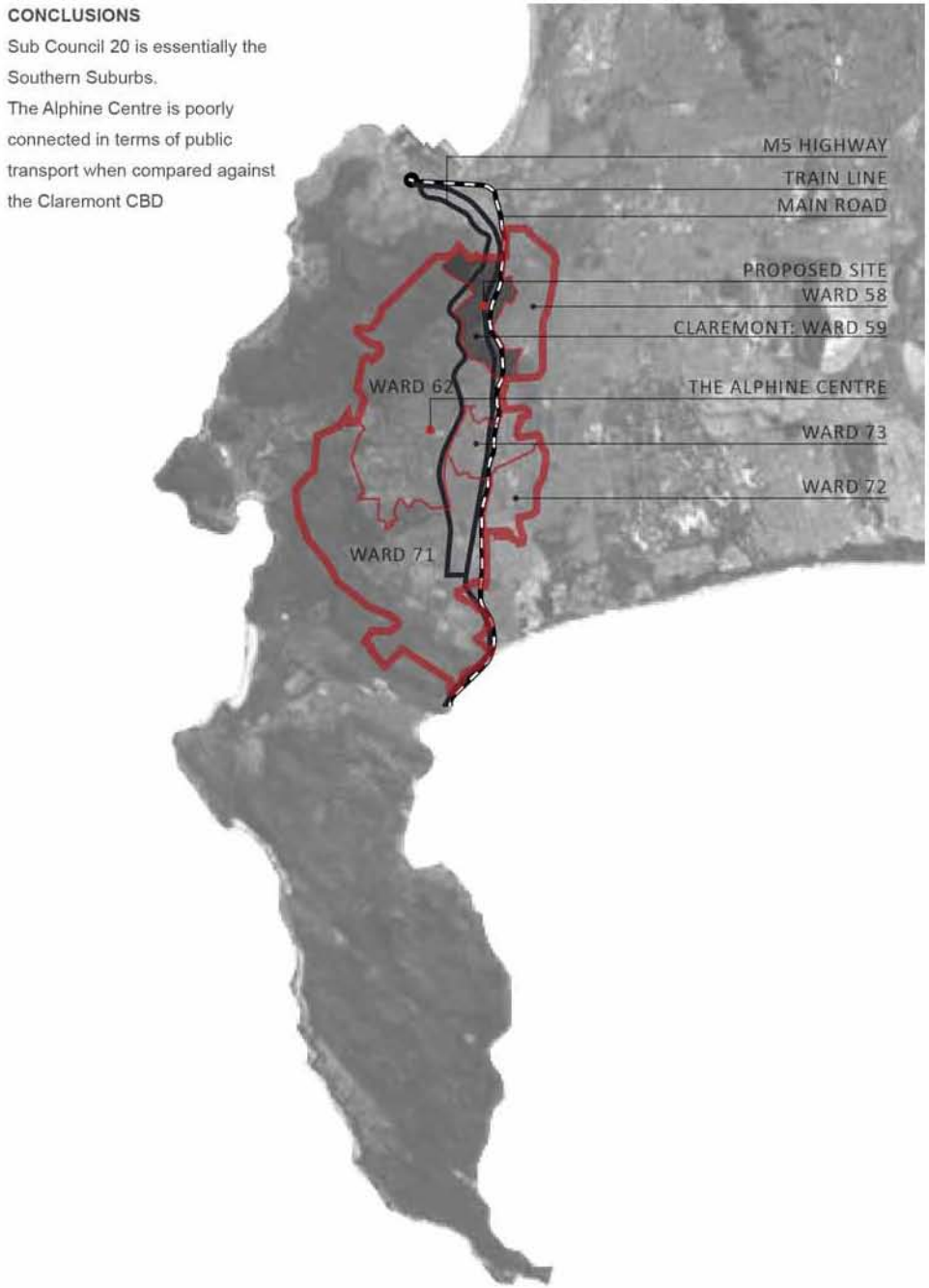
7.7. The Ward Councillor’s Office

The desire to foster as much interaction as possible between the urban church and its context leads to the discovery and argument for including a Ward Councillor's office into the program. Here it is discovered that Claremont forms part of the Sub Council 20 Committee which is basically the Southern Suburbs (see Figure 00).

This committee meets regularly at the Alphen Centre in Constantia, importantly all these meetings are open to the public and attendance is encouraged. However holding these meetings in the middle of Constantia is odd as its accessibility, in terms of public transport, is very poor when compared to the Claremont CBD.

The relocation of the Sub Council meetings and the inclusion of the Ward Councillor's office into the urban church would surely foster and cement strong interactions between the urban church, its immediate environs and the wider context of the Southern suburbs. Here the urban church becomes a public entity and an established player in the civic life of the Southern Suburbs.

Lastly, the inclusion of this programme open up the opportunity for the main church space to find another use as it could host the larger public meetings and debates of the Sub Council Committee.



CAPE TOWN: SUB COUNCIL 20
FIGURE 29

8.

DESIGN DEVELOPMENT

8.1. Programm Organisation

Initially the organisation was thought of in terms of horizontal layering (See Figure 00). This lead to a stratified kind of building in which spatial continuity and interaction between spaces would be limited. In re-conceiving the organisation as vertical stacking a dialogue was initiated between the theoretical idea of the verticality and the building's form and expression as a whole. In addition the stacking of functions allowed for larger and more generous spaces, greater interaction between spaces, simpler servicing and more expressive use of structure.

Church and Nightclub, as stated above, share the same space which is located in the lower eastern part of the building. This facilitates easy access for large numbers of people. The space is orientated eastwards which relates to the theory discussed above and it also provides some interaction between church/nightclub space and the space of the street. The bar areas are situated in the lower western section of the building. Here they are easily accessed form the nightclub and the church as the lower level also functions as the church's youth area.

The Coffee Shop is located in the entrance on the street level. Here it too is easily accessed by the public and therefore most likely to be successful. In addition to common business sense, the coffee shop here activates the entrance level, which makes the building seem more inviting and open to the public.

The Crèche is located low in the building but at the western end, this allows easy access for parents with enough security or 'gates' that one has to pass thorough when dropping and collecting children. The Crèche here is also close to the Church to allow easy access from one to the other. In placing the crèche in this part of the site any noise conflict that may arise between the crèche and backpacker dormitory rooms is eliminated. And lastly this position allows for the open air space above to be used as an outside play area.

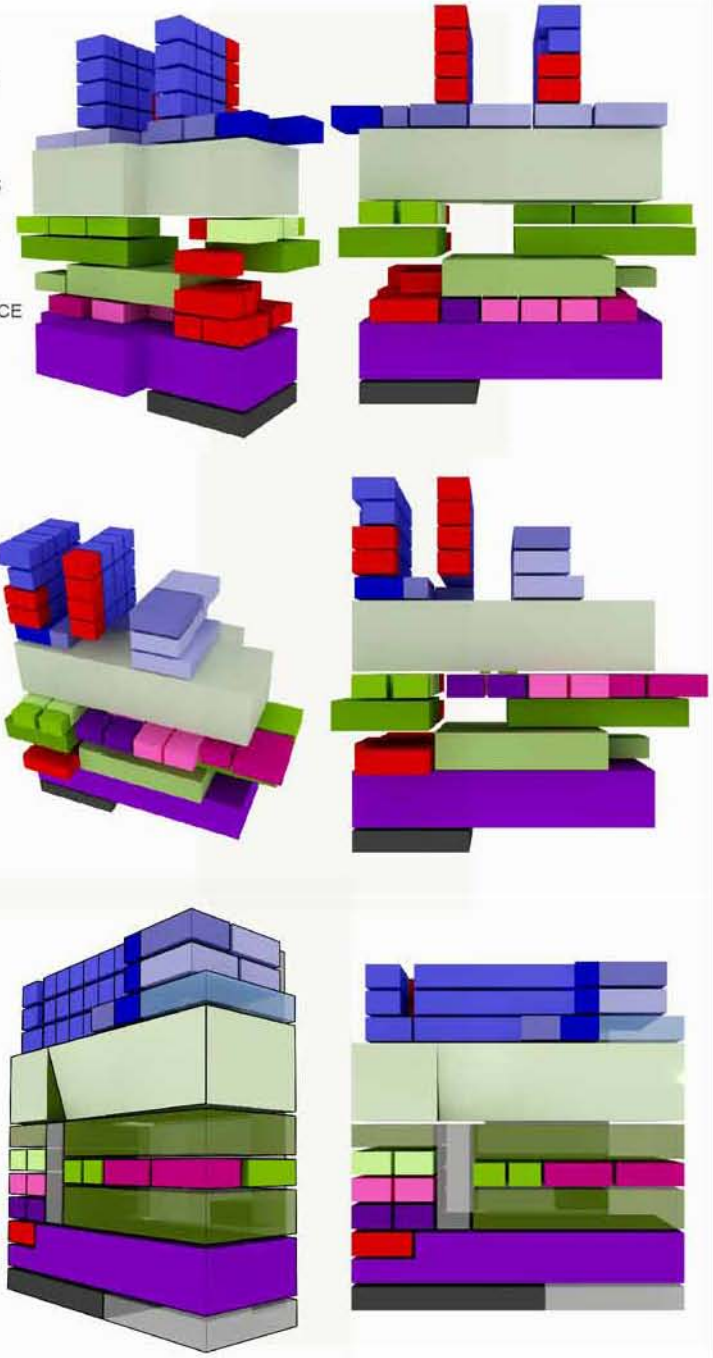
The Backpackers consists of two components, the dormitory rooms and the communal areas. The dormitory rooms are stacked on the eastern edge of the site, this facilitates some interaction and views onto the street and city below, it allows morning light into the rooms and facilitates a more dynamic perception of the building as a whole as the large public scale architecture is broken up by the smaller shutters and balconies of the dorm rooms.

The backpacker's common areas, such as the kitchen, dining halls, reception and common room are located in the upper most western part of the building. These areas have good natural light and views of the mountain.
The Office accommodation consists of separate spaces for the church and the ward councillor, whereas the backpackers and nightclub share one space. These spaces are stacked below the backpackers' common areas. This arrangement acts as a buffer between the backpackers' common rooms and the church/nightclub. The ward councillor's office is the lowest as it is closest to the general purpose meeting rooms which are placed at the bottom of the dormitory room stack where it provides additional buffering between the church/nightclub and dormitory rooms.

DORM ROOMS
BACKPACKERS
COMMON AREAS
CHURCH
CRECHE
MEETING ROOMS
CHURCH OFFICE
WARD OFFICE
NIGHTCLUB OFFICE
NIGHTCLUB
PARKING

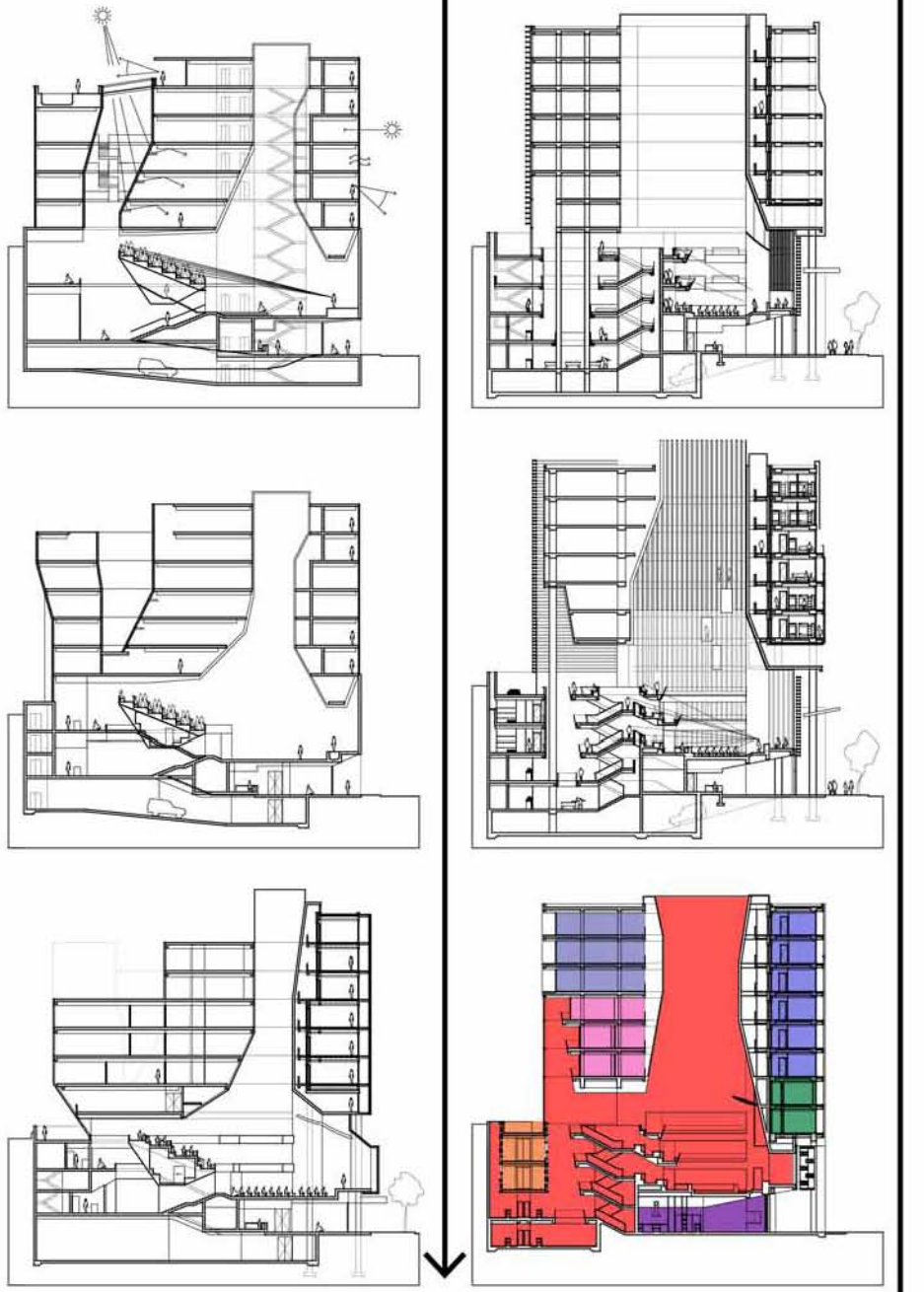
CONCLUSIONS

Horizontal layering of programs produces a stratified kind of building in which spatial continuity and interaction is limited Vertical stacking allows larger volumes, greater interaction between spaces and more expressive use of structure



HORIZONTAL ORGANISATION
FIGURE 30

PROCESS



VERTICAL ORGANISATION
FIGURE 31

8.2. Major Spaces

The above organisation of program facilitated and enabled the formation of three major internal spaces. These spaces relate to the public spaces of the Church / Nightclub, the Entrance and the Coffee Shop .

At the entrance the building presents six large columns that rise 11 metres into the air to create a portico type effect. The 11 metre high roof of the portico is designed to line up and create a dialogue with the neighbouring buildings. Below the floor plain is basically an extension of the street. Here there are no level changes and the brick paving of the side-walk continues well into the building. The slanted volume and continuous floor plain capture and draw the space of the street into the building while the tall columns provide a loose threshold by indicating where the building starts. This idea is in sharp contrast to what happens in the neighbouring buildings. In these buildings the pattern of a hard or defined inside-outside relationship was discovered and subsequently opposed in the urban church as a quest for greater interaction with and openness towards the public realm.

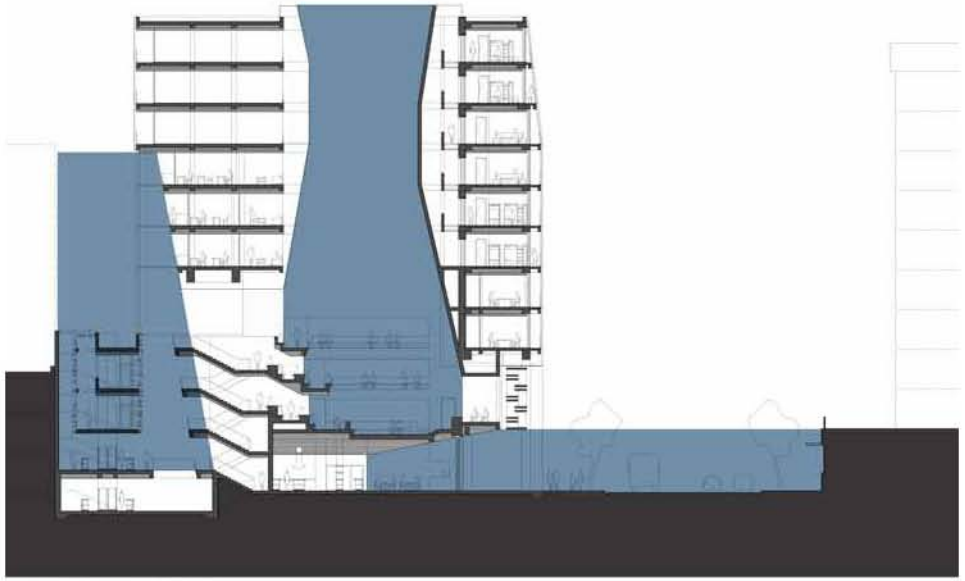
The expressive structure of the portico communicates a strong sense of verticality, this draws influence from the above theoretical investigation, and in doing so denotes the sacred and spiritual nature of the building, the Church. Here the monumentality of the structure also denotes the building's civic or public and open nature. And lastly the portico structure provides the building with a strong identity and presence on the street and within the larger context.

Internally, the volume of this space gradually decreases as it nears the security desk and circulation lobby. This builds a sense of anticipation and procession when moving from the street to the nightclub or church. It also creates a more intimate space or a space of a more suitable scale in which to orientate oneself at the security desk or in the circulation lobby.

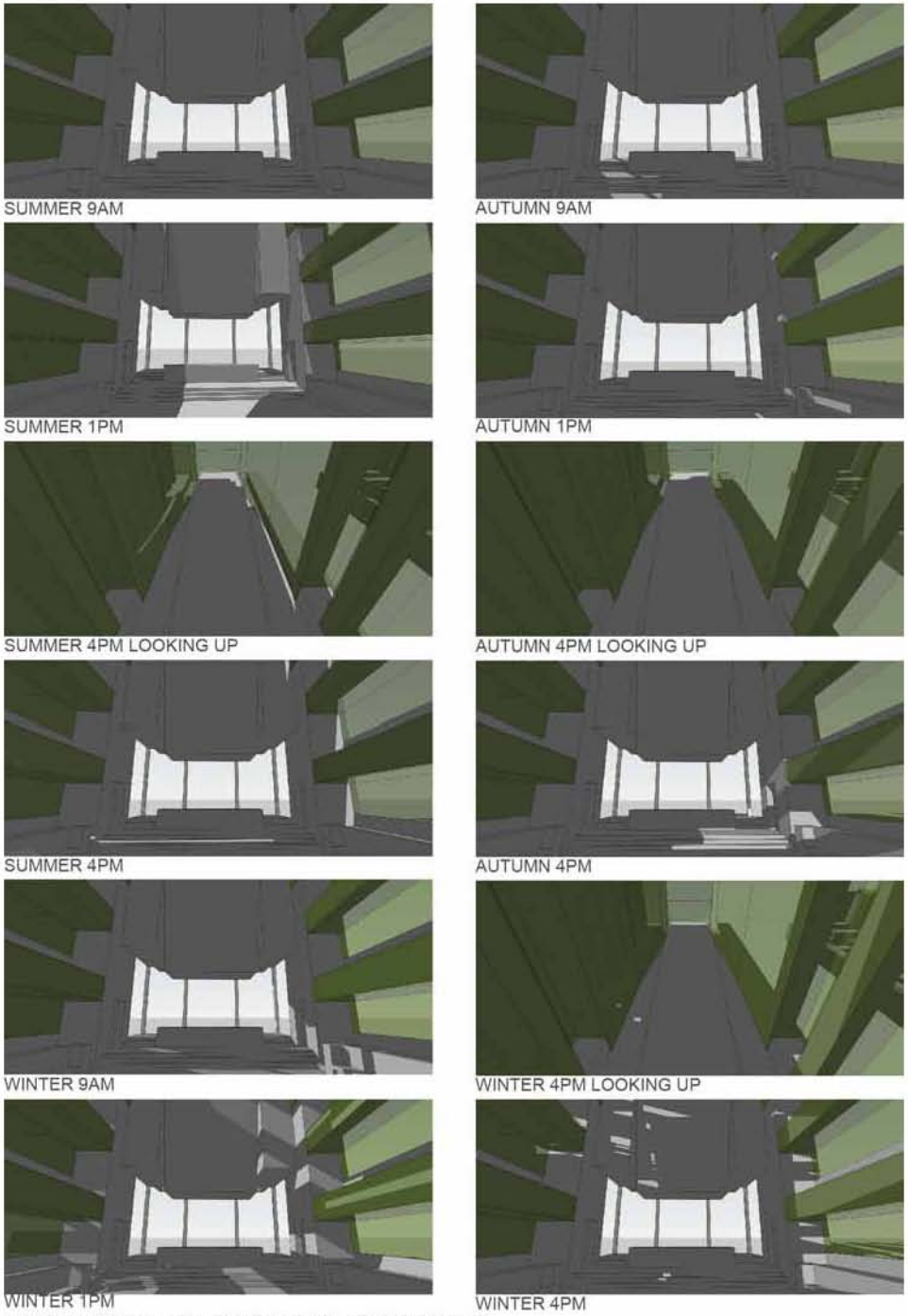
From the entrance one moves through a wide passageway and up a flight of stairs into a tall narrow space. Here one is again able to orientate oneself towards the bar; the bar/lounge area below; the crèche above or towards the stairs that lead to the main space of the church/nightclub. The ever greater cantilevers of the landings break the pure vertical expression and experience of this space. This saves the pure verticality or upward experience for the main church space as here the space leans out towards the mountain and gathers up the afternoon sun.

From this lesser sacred space one moves up the stairs and into the very tall and generous main volume. The massive volume is the true expression of verticality and sacredness, which is alluded to by the former space. The space is rectangular in plan with the stage at the eastern end. Behind the stage one can see out through the portico and onto the city.

In this large space light is softly defused by three massive translucent walls. Here light studies reveal that in this enormous volume the focusing of direct sun light would be difficult if not impossible to achieve. Here the strategy was adopted to get as much light in as possible (see Figure 00), this was achieved by the translucent cladding which allows light to pass through the surrounding spaces above and into the main volume. This translucency is then enhanced by contrast against the concrete solidity of the eastern wall. This front wall is a pure and massive expression of monumentality. Its strength and solidity are intended to impart a sense of awe and wonder whilst providing a valid technical solution for insulating the dormitory rooms behind it against the sound of the church / nightclub, which will be discussed in more detail later.



MAJOR SPACES
FIGURE 32



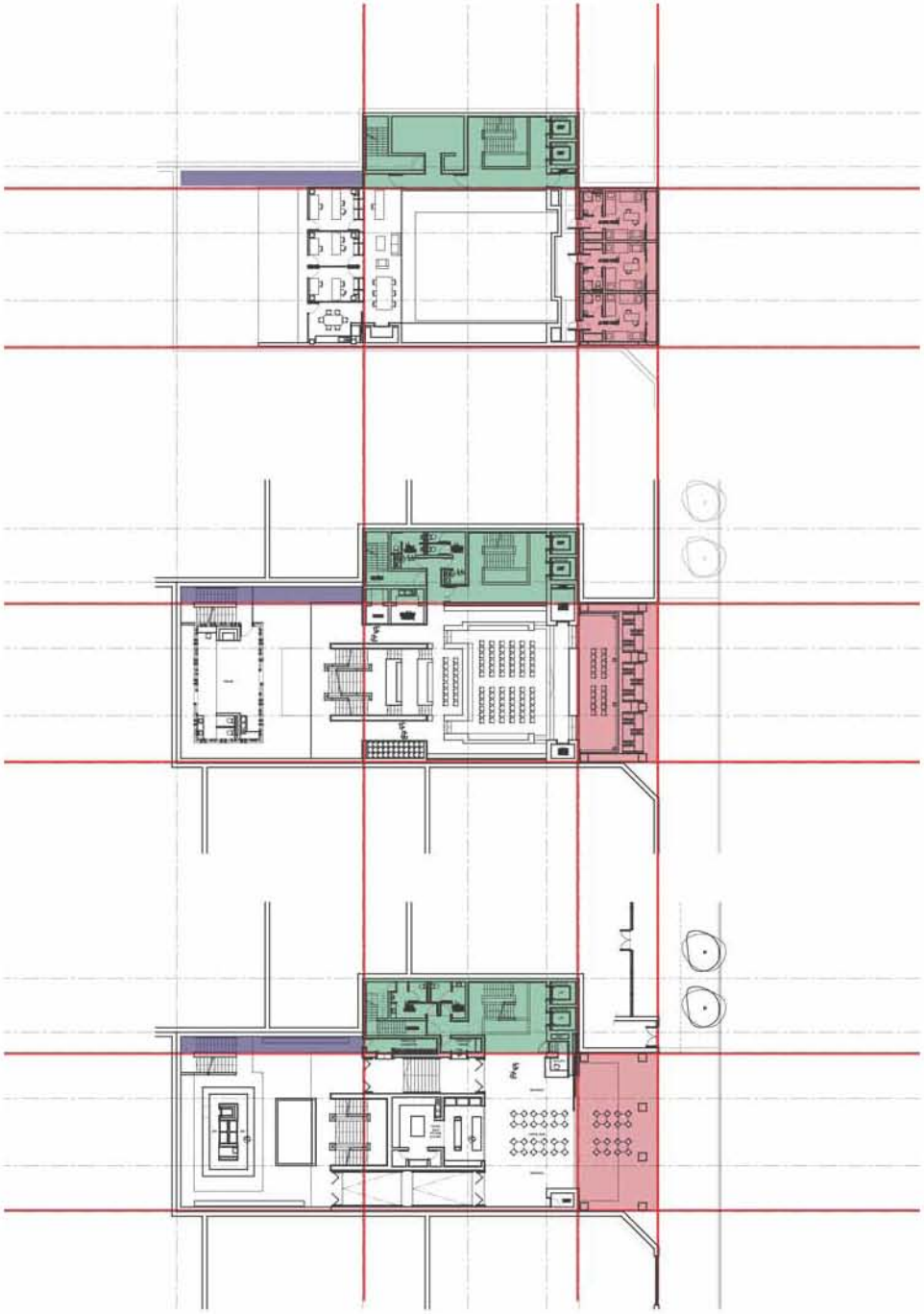
SUN STUDY - PROVISIONAL GRAPHICS
FIGURE 33

8.3. The Grid

The gird was developed by attempting to reconcile the western and eastern ends of the site. Here the western end is wider than the eastern end, initially the planning attempted to make full use of the western end which resulted in complex and untidy geometries. The solution was to cut off the north-west corner of the site and and give it over to the crèche circulation. This resulted in a neater, symmetrical plan which gives the lower levels greater clarity.

The next major move was realised early on in the project. Here all the vertical circulation and services, at the lower levels, are consolidated into the site's northern alcove. This move opened up the remaining floor plates to be manipulated to suit the relevant program and ensured the symmetry of the church.

The final move introduces another, yet somewhat vague, symmetry into the project. Here the space at the eastern end of the site, from the start of the alcove to the boundary is given over to the portico below at the backpackers' dormitory rooms above. In the upper levels this makes circulation and access to the dormitory rooms simple. In the lower levels the church choir pushes through the acoustic shield wall of the dormitory rooms and into the portico space, this extension of the church brings a more rectangular shape to the main space and creates greater spatial variation within the large space of the church / nightclub.



GRID
FIGURE 34

9.

SOUND INSULATION

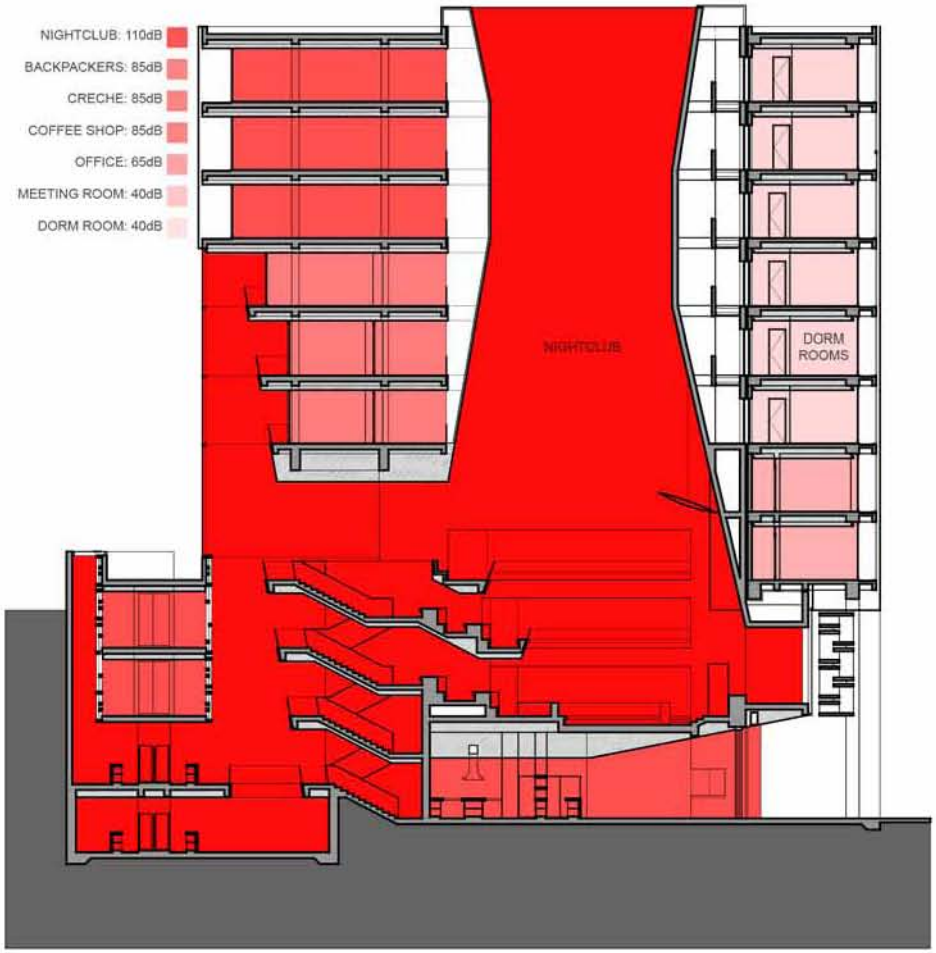
& ACOUSTIC DESIGN

9.1. Sound Insulation, Identifying the Conflict

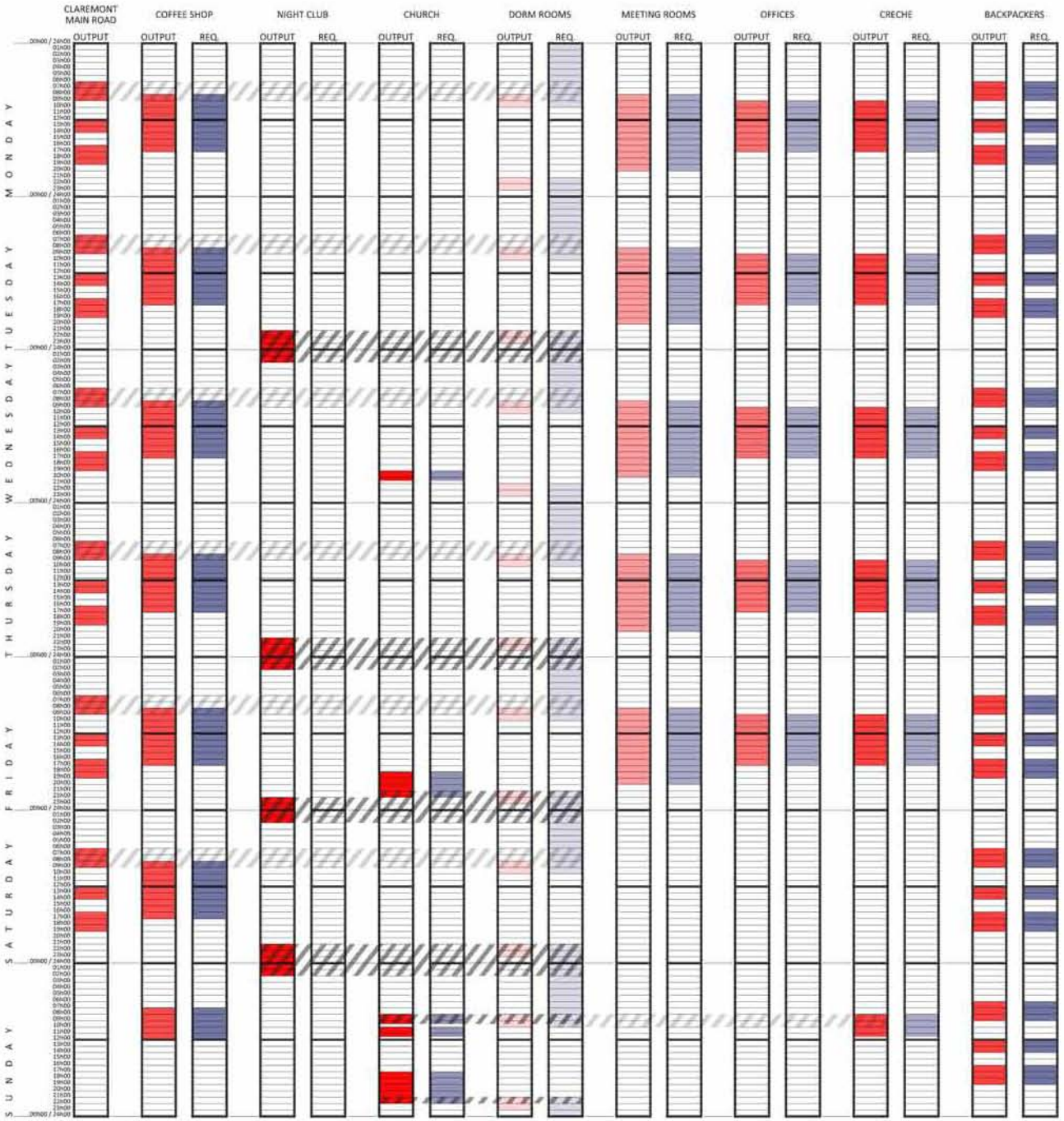
Having established the programmatic mix and internal arrangement, the issue of how to insulate the dormitory rooms against the sound of the night club arises. The severity of the conflict becomes clear when the sound outputs and tolerances of each program are plotted against time (see Figures 00 & 00). Here the problem is defined as the need to apply a reduction of 95 decibels to achieve tolerable sound levels within the dormitory rooms.

9.2.Insulation Against Air Borne & Solid Bourne Sounds

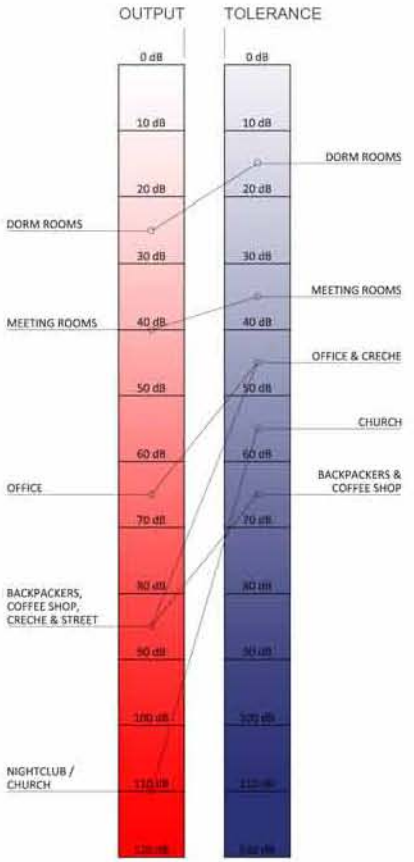
Sound insulating, according to Lewis (1964), is a structural technique whereby the intensity of sound produced in one space is reduced by the time it reaches another space. The type of sound to be insulated against here is known as air borne and solid borne sound. Air borne sounds travel through air paths and in the absence of air paths the sound waves enter into solids which they force into vibration. These vibrations, or solid borne sounds, can set up new vibrations, or new air borne sounds, in the air on the other side of solid. This process can repeat itself numerous times until the sound becomes attenuated below the limits of audibility. Lewis also states that effectiveness of a wall or floor elements as sound barriers depends on the factors of: mass; stiffness; frequency response; discontinuity and flanking transmission.



SOUND OUTPUT PER SPACE
FIGURE 35



CONCLUSION:
NIGHTCLUB'S OUTPUT : 110dB
DORMITORY TOLERANCE: 15dB
REQUIRED REDUCTION: 95dB



SOUND OUTPUT & TOLERANCES (PER PROGRAM) vs TIME
FIGURE 36

9.3. Mass

Yerges (1969) states that more massive and airtight an enclosure is the more effective it will be as a sound barrier. Lewis (1964) also states that mass is by far the most important property which affects the sound insulating capabilities of a solid, non-porous material. The basic law which governs mass states that if the mass of a solid is doubled, a noise reduction of 5dB will be obtained.

9.4. Stiffness & Frequency Coincidence

Lewis (1964) states that the greater the stiffness of a partition the less it will vibrate and therefore the less sound it will transmit. However in all partitions there is a particular frequency at which the wavelengths of the vibrations within the partition coincide with the wavelengths of the incident sound, which is the sound striking the surface of the partition. This coincidence is known as the coincidence frequency and it results in more efficient transfer of sound energy. Day, Ford & Lord (1969) state that these coincidences generally occur at high frequencies and pose greater problems in composite and sandwich constructions. In addition, Lewis states that in heavy solid partitions this coincidence falls off to very low frequencies and can be ignored as they are inaudible.

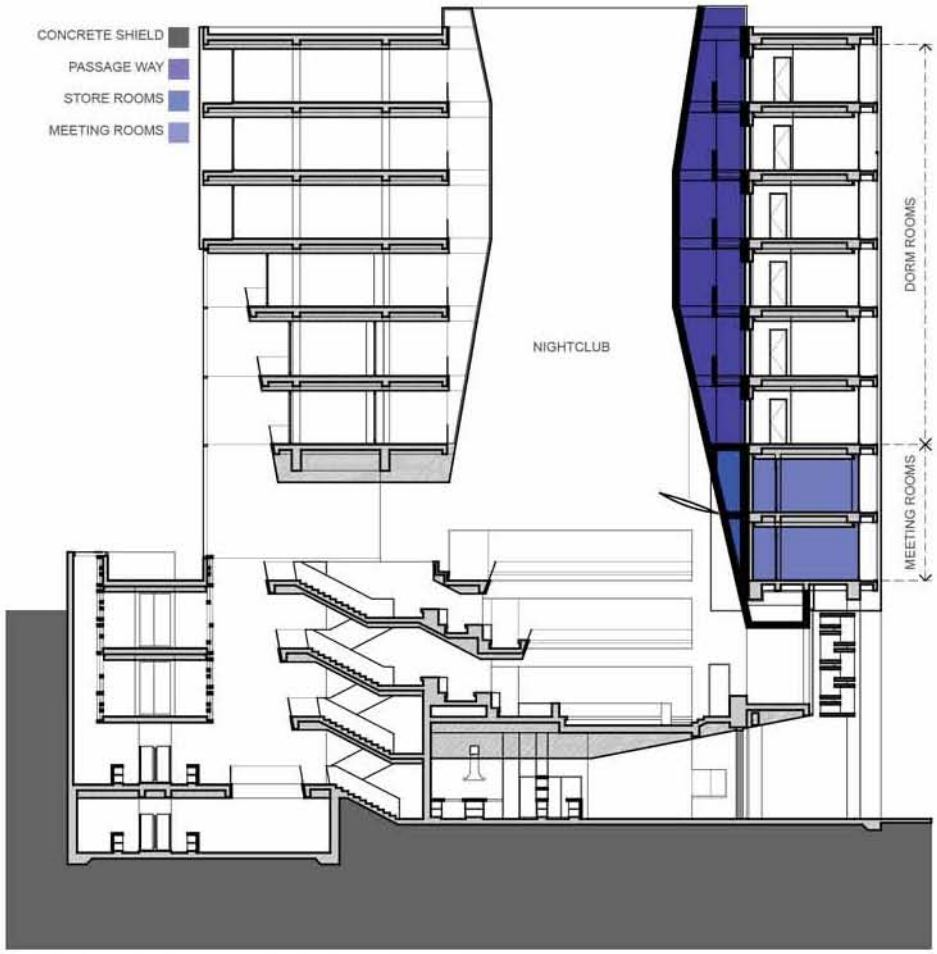
9.5. Discontinuity & Flanking Transmission

In the case of cavity construction, the mass law applies to the two leaves separately as opposed to the wall as a whole. However the air enclosed in the cavity can act as a coupling and reduce the sound insulation value. Lewis (1964) states that cavity constructions yield higher insulation gains values for the mid to high frequencies and solid constructions give better gains in lower frequencies. Lewis also states that in specialised situations it is advisable to make fullest use of discontinuity which combine the advantages of solid and cavity construction will a minimum cavity dimension of 50mm as at this width the fall off of low frequencies becomes pronounced. Here discontinued or isolated constructions can eliminate the potential of flanking transmission as there is no connection to any neighbouring structure through which sound energy could be transmitted.

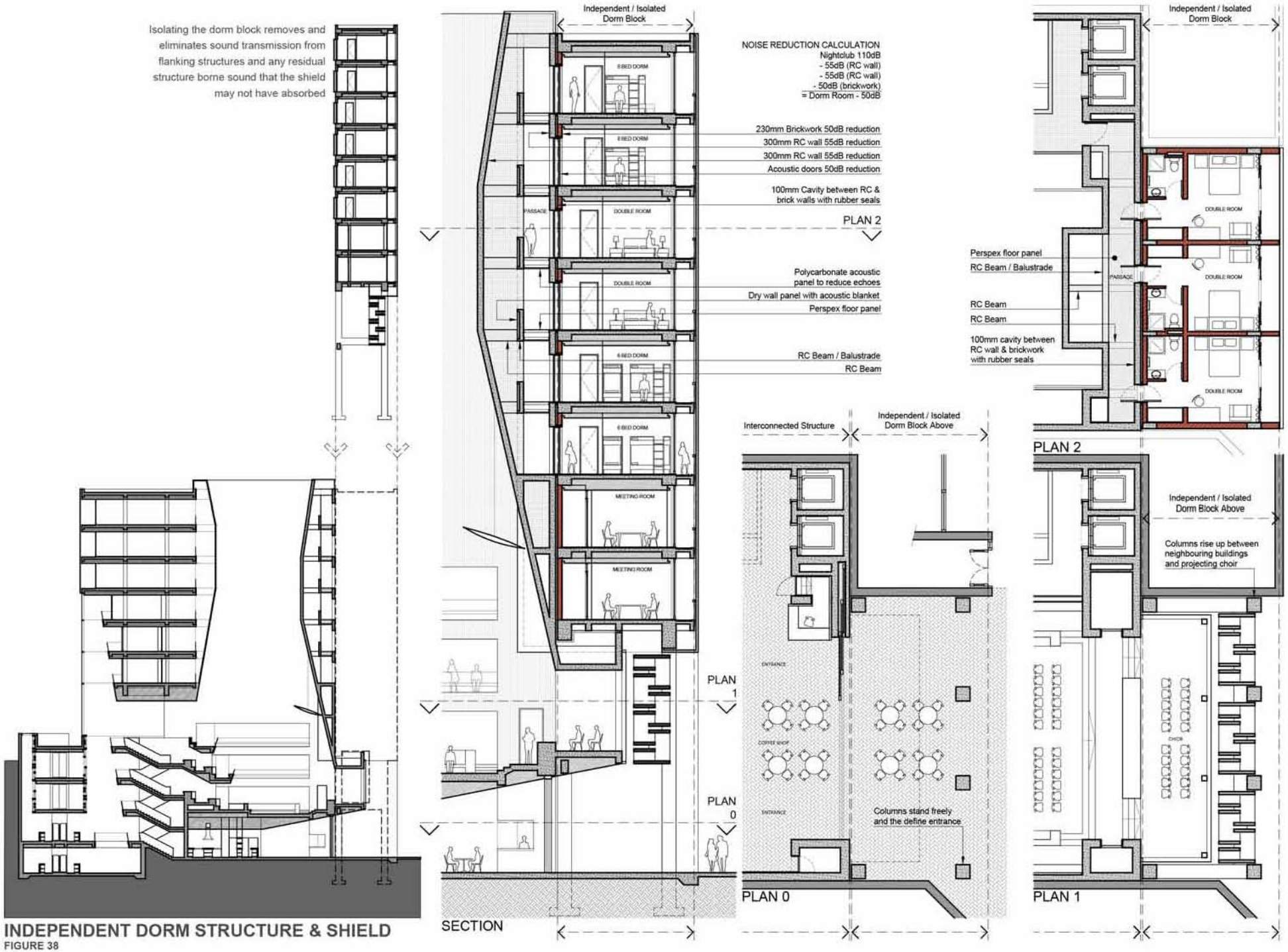
9.6. The Dormitory Shield &
The Isolated Dormitory Block

From the above research the idea of creating a buffer space to shield the dormitory rooms form the nightclub was developed. This space was given the additional functions of access corridors for the dormitory rooms and storage space for the meetings rooms (see Figure 00). The use of concrete as the material for this construction was obvious as it will give the structure sufficient mass, solidity and stiffness as required to provide adequate insulation. Day, Ford & Lord (1969) state that a 100mm thick concrete wall will provide a reduction of 45dB. Here the structure is intended to act as a large cavity wall with two 300mm thick concrete leafs which when added up, gives theoretical reduction of 110dB. However these two walls are connected to each other by beams and to other flanking structures which all help give it stability and stiffness, this means that the reduction of 110dB may not be accurate, but it is assumed that there will be a significant reduction on the dormitory side of the structure (see Figure 00).

Following this the decision to isolate and make the dormitory block an independent structure is made to ensure the elimination of all flanking transmission and of any residual structural borne sound that the shield may not have absorbed. The separate structure also allows for an additional air cavity and a third solid 230mm brickwork leaf which provides an additional 50dB reduction. (See Figures 00) This combination of the concrete shield and the isolated dormitory block will ensure tolerable sound levels inside the dormitories during the night club opening hours.



DORM SHIELD & BUFFER SPACES
FIGURE 37



INDEPENDENT DORM STRUCTURE & SHIELD
FIGURE 38

9.7. Acoustic criteria for the Church/Club space

The main space of this dissertation is essentially a multi-purpose space, which has to be acoustically suitable for both speech and music. However the acoustic requirements for spaces which are designed for speech are different to those which are designed for music, therefore there has to be some compromise made in the finding a suitable acoustic quality.

The music produced in this space will be electronic, it will be produced by a loudspeaker system and therefore as stated by Lewis (1964) there is less reason to observe the requirements for optimal acoustics of music. Here an amplification system is able to supply an abundance of power which means that there is no need to supplement the direct sound of the speakers by reverberation. Music is also recorded with reverberation and therefore the combination of ample power and the added reverberation means that the intelligibility of amplified music will tend to increase as the room is made more acoustically dead. Therefore, having ruled out the need to supply the correct requirements for music, the space can be acoustically geared towards speech.

9.8. Reverberation Time

Yerges (1969) states that reverberation time is the time it takes for the source signal energy level to decay to one millionth of the original level or in other words for the original sound to decay to 60dB. This time as stated by Lewis (1964) is governed by the volume of the space, the absorption of sound by the materials which make up the boundaries of the space and the people within the space. Lewis also states it is desirable to adjust reverberation times in relation to volume and use. Neurfert (2012) indicates (see Figure 00) that at the volume of 5000 sqm a suitable reverberation time would be 1.4 seconds and HyperPhysics (2000) states that this reverberation time should be 1.5 seconds. From these statements the author will assume that a suitable reverberation time will be between 1.4 and 1.5 seconds.

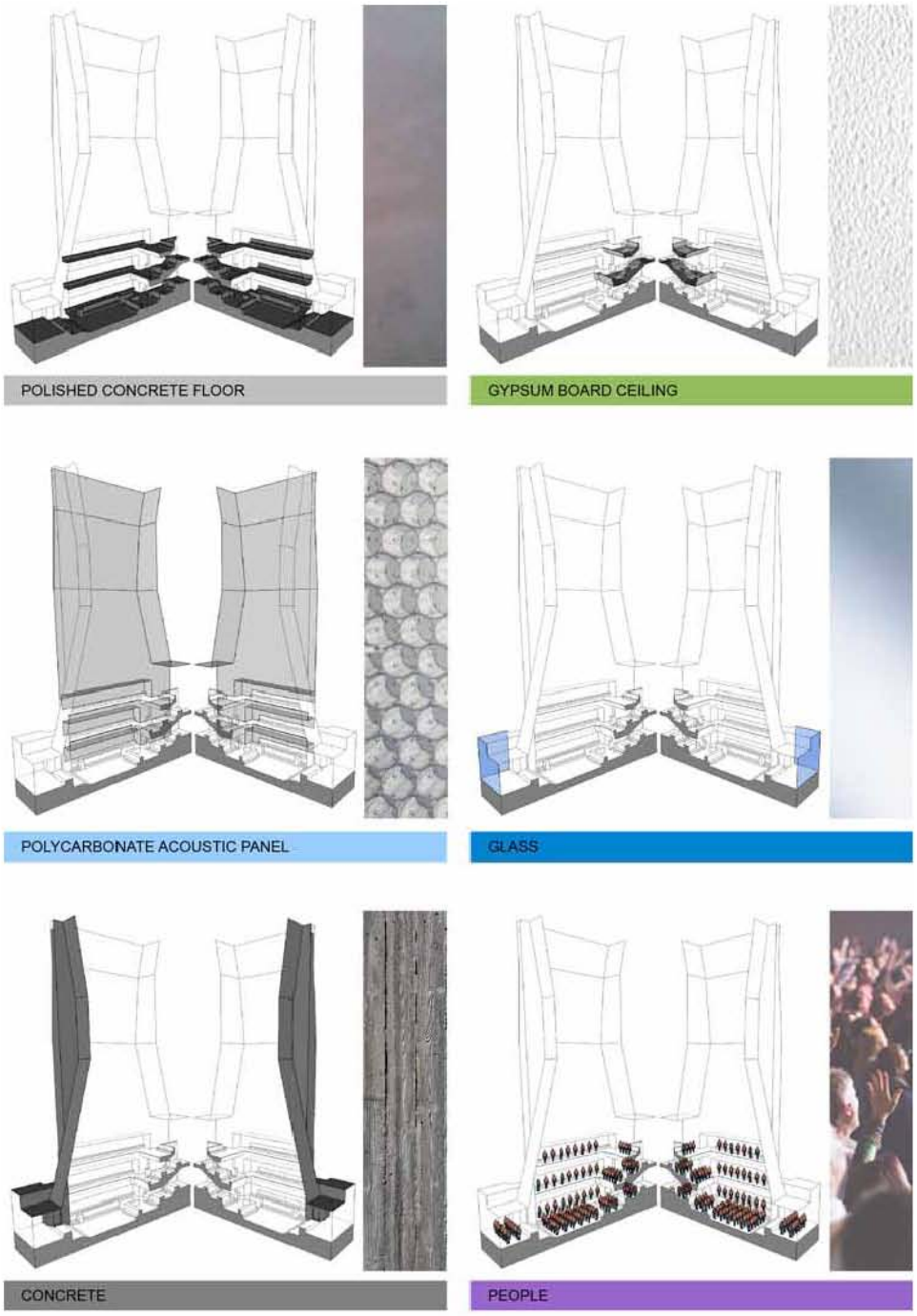
9.9. Reverberation Time Calculated

Reverberation time can be measured by using the Sabin formula, which is:

$$T\ (\text{reverberation time, seconds}) = \frac{0.05\ X\ \text{Volume (cubic feet)}}{\text{Number of Absorption Units}}$$

The number of absorption units is basically the sum of all the absorption units within the given space. An absorption unit is the product of a material's surface area, within the space, multiplied by that material's absorption coefficient. It must also be noted that the absorption units of each material must be worked out for the six frequencies that, according to Lewis (1964), are generally adopted. These frequencies are given in cycles per seconds and they are 125; 250; 500; 1000; 2000 & 4000.

In the table below (see Figure 00) the reverberation calculation can be seen. Here it is shown that this space should possess a suitable reverberation time of between 1.57 and 1.41 seconds which corresponds to the requirement of a multi-purpose space. The material which effects this outcome the most is the acoustic polycarbonate panel (see Figure 00). This material provides a high absorption coefficient and it brings a transparent and diffused quality to the space.



REVERBERATION CALCULATION: SURFACES
FIGURE 39

VOLUME OF SPACE : 176 599 cubic feet (5 000 cubic meters)

SURFACE	AREA	MATRIAL	COEFFICIENT *frequency cycles per second*						ABSORPTION *frequency cycles per second*					
	SQUARE FEET		125	250	500	1000	2000	4000	125	250	500	1000	2000	4000
FLOOR: LEVEL 2	4234													
FLOOR: LEVEL 3	1712													
FLOOR: LEVEL 4	1328													
FLOOR: TOTAL	**7274**	**POLISHED CONCRETE FLOOR**	0.01	0.01	0.01	0.02	0.02	0.02	**72.74**	**72.74**	**72.74**	**145.48**	**145.48**	**145.48**
NORTH WALL	4116													
WEST WALL	2814													
SOUTH WALL	4116													
WALL: TOTAL	**11046**	**POLYCARBONATE PANEL**	weighted coefficient supplied by manufacturer (average) : 0.40								**4418.4**			
EAST WALL	**5424**	**FAIR FACED CONCRETE**	0.01	0.01	0.01	0.02	0.02	0.03	**54.24**	**54.24**	**54.24**	**108.48**	**108.48**	**162.72**
CEILING: LEVEL 2	918													
CEILING: LEVEL 3	504													
CEILING: TOTAL	**1422**	**GYPSUM BOARD**	0.2	0.15	0.1	0.07	0.04	0.04	**284.4**	**213.3**	**142.2**	**99.54**	**56.88**	**56.88**
GLASS	**932**	**GLASS**	0.35	0.25	0.18	0.12	0.07	0.04	**326.2**	**233**	**167.76**	**111.84**	**65.24**	**37.28**
PEOPLE	**250**	PER PERSON (INCLUDING SEATS	1.83	3.87	5.06	5.59	5.38	4.95	**457.5**	**967.5**	**1265**	**1397.5**	**1345**	**1237.5**
		ABSORPTION TOTALS:							**5613.48**	**5959.18**	**6120.34**	**6281.24**	**6139.48**	**6058.26**

REVERBERATION TIME = (0.05 X VOLUME) / ABSORPTION

0.05 X VOLUME =	**8829.95**

REVERBERATION TIMES:	**1.57**	**1.48**	**1.44**	**1.41**	**1.44**	**1.46**

REQUIRED REVERBERATION TIME FOR MULTIPURPOSE SPACES: 1.4 – 1.5 SECONDS

REVERBERATION CALCULATION: TABLE
FIGURE 40

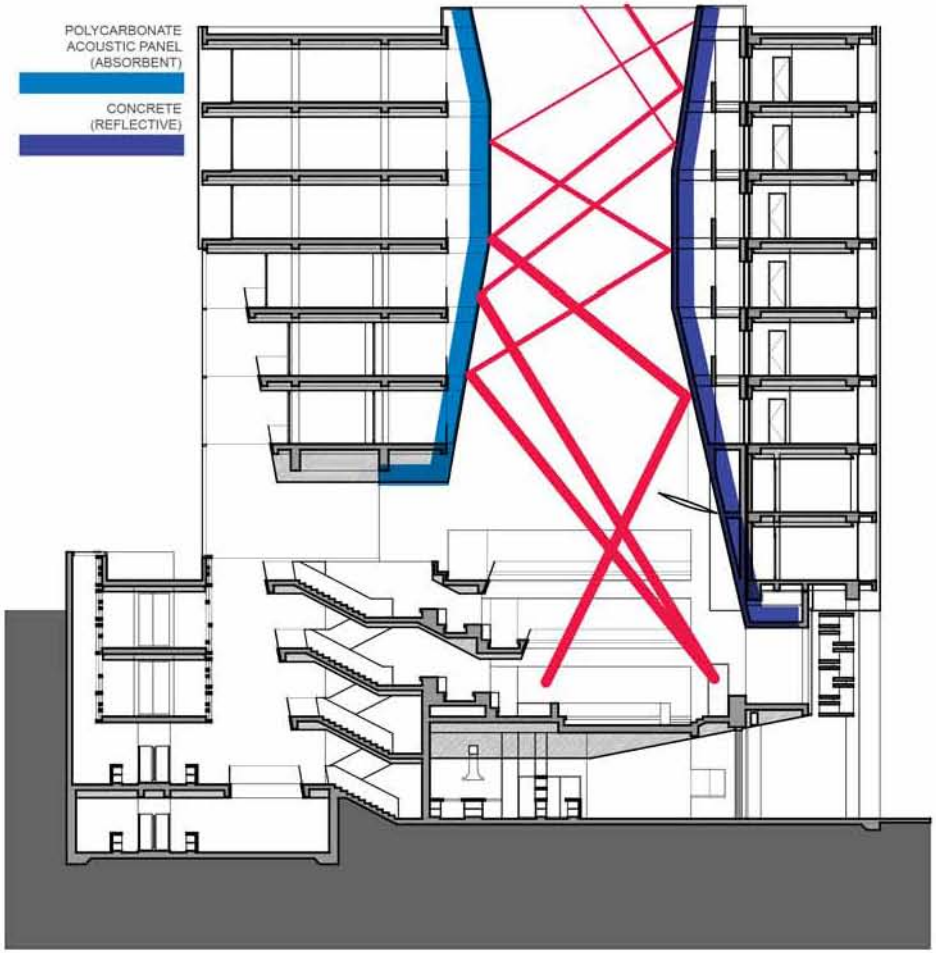
9.10. Room Shape

Lewis (1964) states that air which is contained within a volume, such as a room, will oscillate at a series of frequencies which is peculiar to the shape of that enclosure. Therefore immediately after a sound has been emitted in a room the pressure that remains will oscillate according to the series of frequencies peculiar to the shape of that room, until the energy disperses and the sound is no longer audible. This is another and a less abstract way of thinking about and dealing with reverberation.

In small rooms, as stated by Yerges (1969) there are generally few acoustical problems although the sound quality within them is far from optimum. Yerges also states that rooms of pure geometric shapes tend to be the most troublesome. Lewis (1964) states that rooms which are more complex in shape possess numerous natural frequencies and therefore there is a greater likelihood of correspondence between frequencies contained within an emitted sound and those of the room itself. This is useful because greater correspondence between frequencies results in sound energy being more evenly dispersed, or in other words the sound will die away more evenly.

Irregular shaped spaces, as stated by Lewis (1964), also eliminate the potential for flutter echoes. A flutter echo is caused when a sound is imitated between two parallel walls. Here the sound will be reflected between the walls until the energy is absorbed by the walls themselves. This can be prevented by ensuring that there are as few parallel walls as possible and if there are, ensuring that at least one of the surfaces is more absorbent than the other.

The main space of this dissertation is irregular and complex in shape. Here the complex geometry ensures a high correspondence between spatial frequencies and emitted frequencies which should result in an even dispersion of sound energy (see Figure 00). In addition the geometry with the acoustic cladding, described above, also eliminates the potential for flutter echoes.

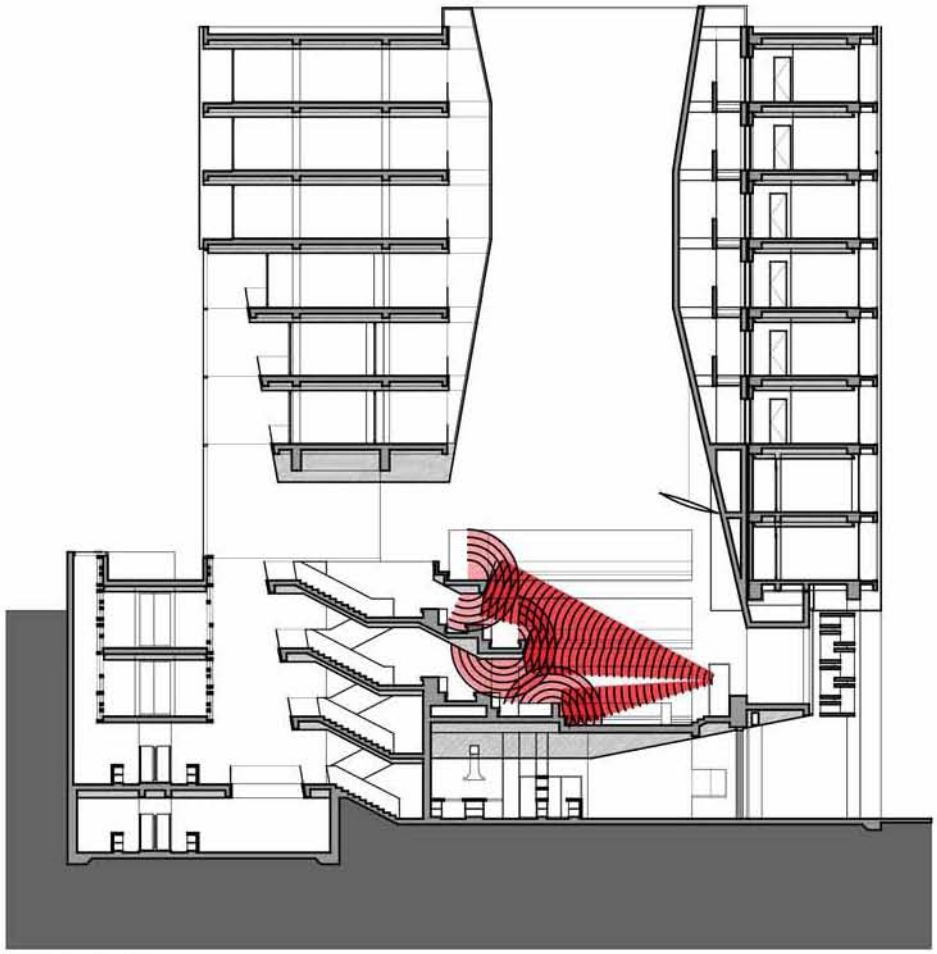


ROOM SHAPE
FIGURE 41

9.11. Diffusion

Diffusion is the scattering of sound waves which reduces the sense of localisation of sound. Lewis (1964) states that diffuse conditions of sound generally make for good hearing conditions. Yerges (1969) also states that a diffuse sound field is preferable to a highly specular field. Yerges continues by saying that stark and simple surfaces tend to cause acoustic problems and Lewis advises that large surfaces should be broken up by small projections, which help to diffuse the short wavelengths of high frequencies, and by large projections, which will diffuse longer wavelengths of the lower frequencies.

In the diagram below (see Figure 00) it can be seen that there are a number of projecting balconies and low walls which assist in diffusing and dispersing the sound energy within the space. These projections are in the most located towards the back of the space which is also helpful as it reduces the risk of the sound coming from the stage being reflected back in that direction.

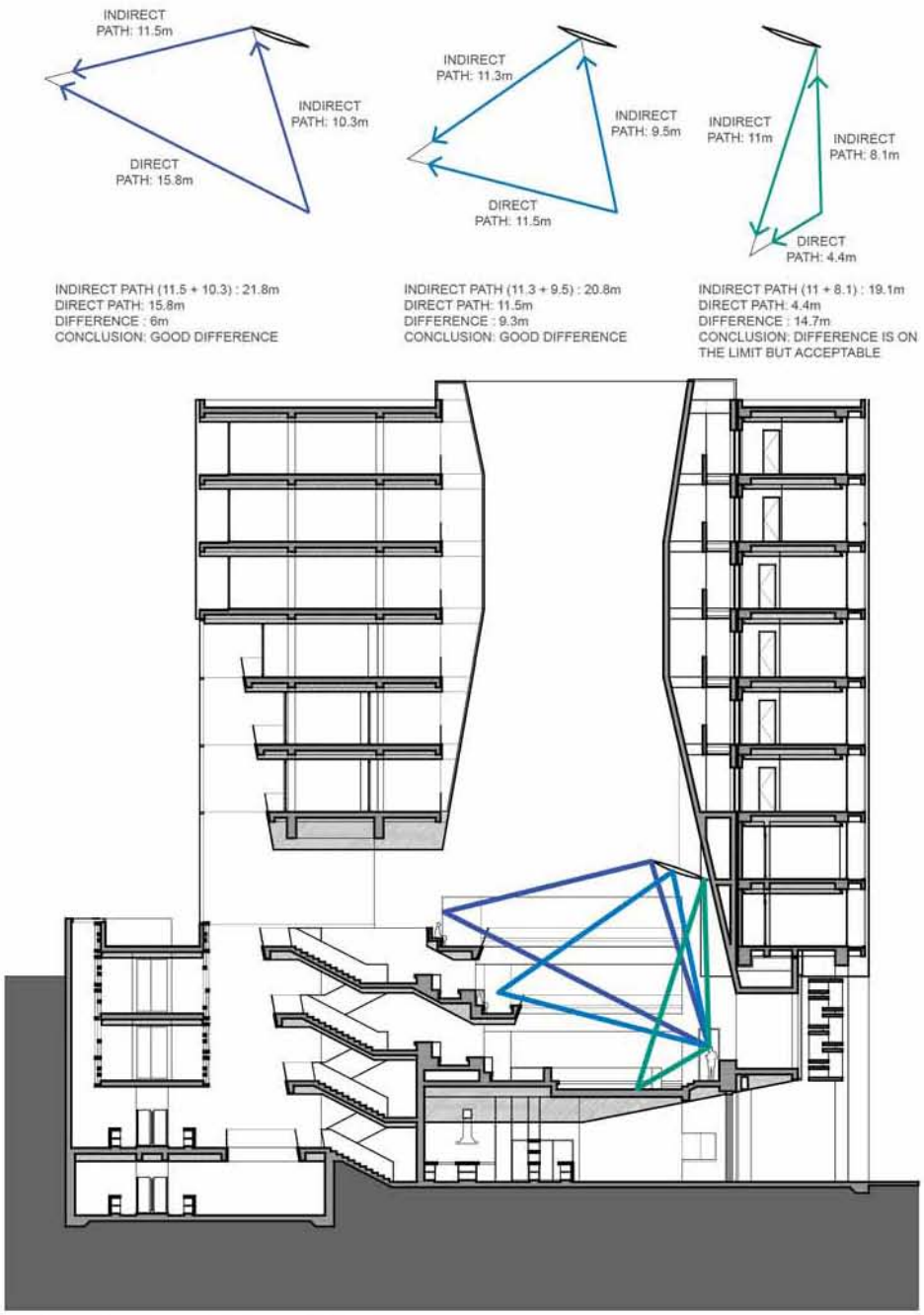


DIFFUSION
FIGURE 42

9.12. Direct and Indirect Sound

Indirect sound, as stated by Yerges (1969) is undesirable and will result in an echo if it arrives too late. If indirect sound arrives soon after direct sound, it can reinforce and enrich the direct sound. Lewis (1964) says that indirect sound paths which are no greater than 10 metres more than direct sound paths are useful and reinforce direct sound, and indirect paths of more than 15 metres must be avoided as these can result in echoes and reduce intelligibility. And lastly Neuferts (2012) states that there should be reflective surfaces around the source, or at the source end of the space and that the back or receiving end of the space should not cause sound to reflect back towards the source or podium.

In the diagram (see Figure 00) three basic sound paths have been plotted and measured. The reflector above the stage is placed at a height which achieves the best possible results for all three indirect sound paths with as little compromise as possible, but ultimately all the indirect paths fall under the suggested limit of 15 meters.



DIRECT & INDIRECT SOUND
FIGURE 43

11.

CONCLUSION

This dissertation set out to discover a way for the Pentecostal church to ensure its survival and continued existence within the contemporary urban environment of the Claremont Central Business District. The idea that the church is in need of a means of survival is based on the fact that as an institution it is in decline, that land in urban centres is in demand and today it is not easily justifiable to give land and provide a place for the mono-functional and declining institution of the church within the urban context. It is from this premise that the central argument for the cross-programming of the church to increase its activity and diversify its functionality to ensure its survival and existence within the urban context is proposed. Throughout this it was essential to never lose sight of the essence of the church, its spirituality and the elements that make it a sacred space.

It was this need to retain the sacred that made the study of the effect of light on the building so important. It is this element that ensures that at the heart of this multi-functional space is the ethereal and the numinous. From this central premise the study then had to consider the needs of the vibrant Claremont Central Business District. For the church to survive within its context it had to be redesigned as a multi- functional space. The premise for this argument is that cross-programming will supply the church with diverse revenue streams which reduce reliance on membership contributions, that cross-programming will increase interaction between the church and its surrounds and that adding programmes that are contextually relevant will provide justification in terms of land allocation within the urban centre. It is this which led to the selection and argument of the introduction of a diverse range of programmes from a backpackers' hostel to a crèche to a coffee shop to a ward councillor's office and a night club.

The backpackers' was argued for by an investigation into urban scale rituals, here it was found that there is a limited budget accommodation in the area, and that the backpackers help fill this gap and provide accommodation for out of town supporters. The argument for the nightclub was also developed form the urban ritual investigation, here it was revealed that nightclubs tend to cluster together and the logical place to site a new nightclub would be in the vicinity of other existing nightclubs. Here an additional investigation into activities that were common in both churches and nightclubs provided evidence for these activities to share the same space. The argument for the ward councillor's office is made by stating that this program will bring the church into contact with the civic life of Claremont and the Southern Suburbs. And finally the argument for the coffee shop and crèche are simply made by stating that these services already exist in churches and that there is the potential to extend these to operate independently which may also assist in developing greater interaction between the church and its context. Within this varied range of programmes it was essential to find solutions to the issues of noise. Here the solutions of a shield, buffer spaces and constructing the dormitory block as an independent structure eliminate the noise issues and prove that this programmatic mix is workable.

Finally, it was essential to retain the sacred essence of the church and here the key theme of verticality was used in developing the programmatic arrangement and in the development of the major internal spaces. This shaped the final scaled drawings which brought to life these ideas and theories and ultimately demonstrate the central argument of cross-programming the church in order to ensure its survival and continued existence in the contemporary urban environment.

12.

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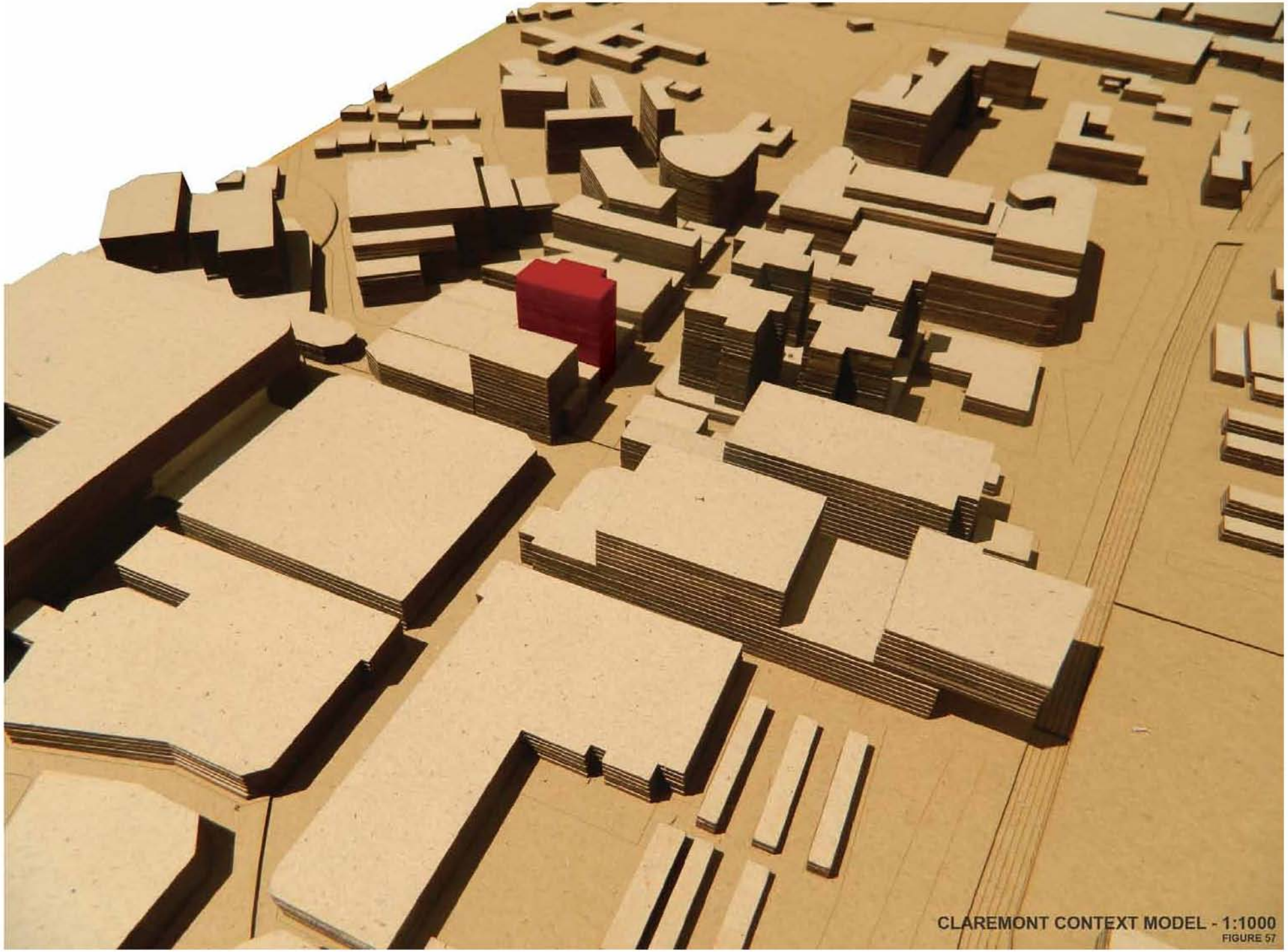
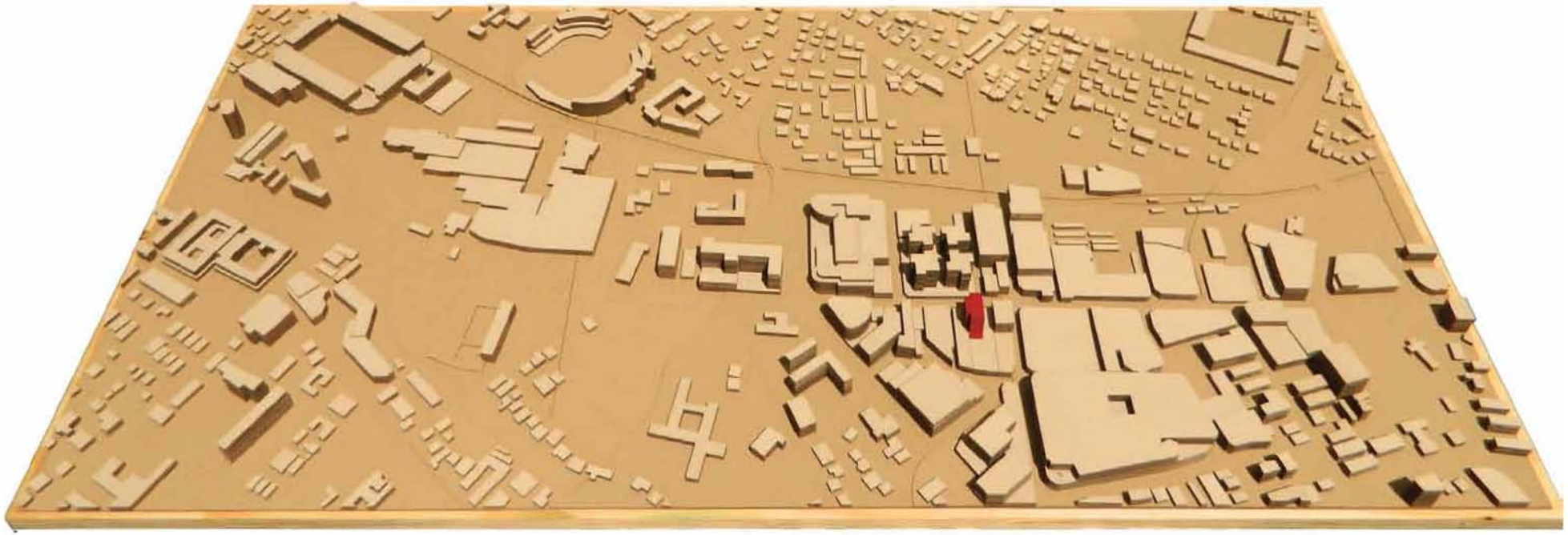
13.

APPENDIX A

FINAL MODELS

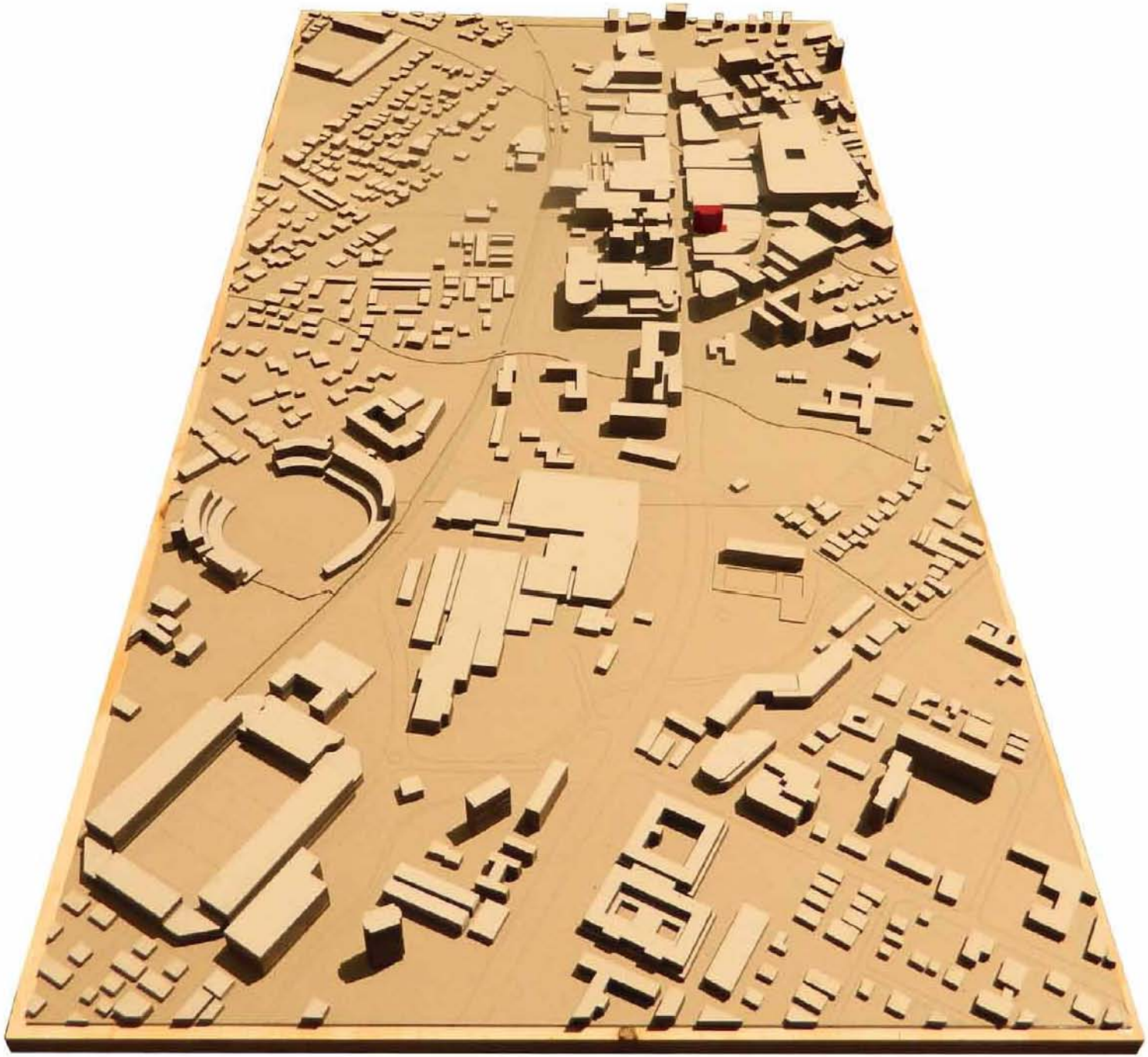


CLAREMONT CONTEXT MODEL - 1:1000
FIGURE 57



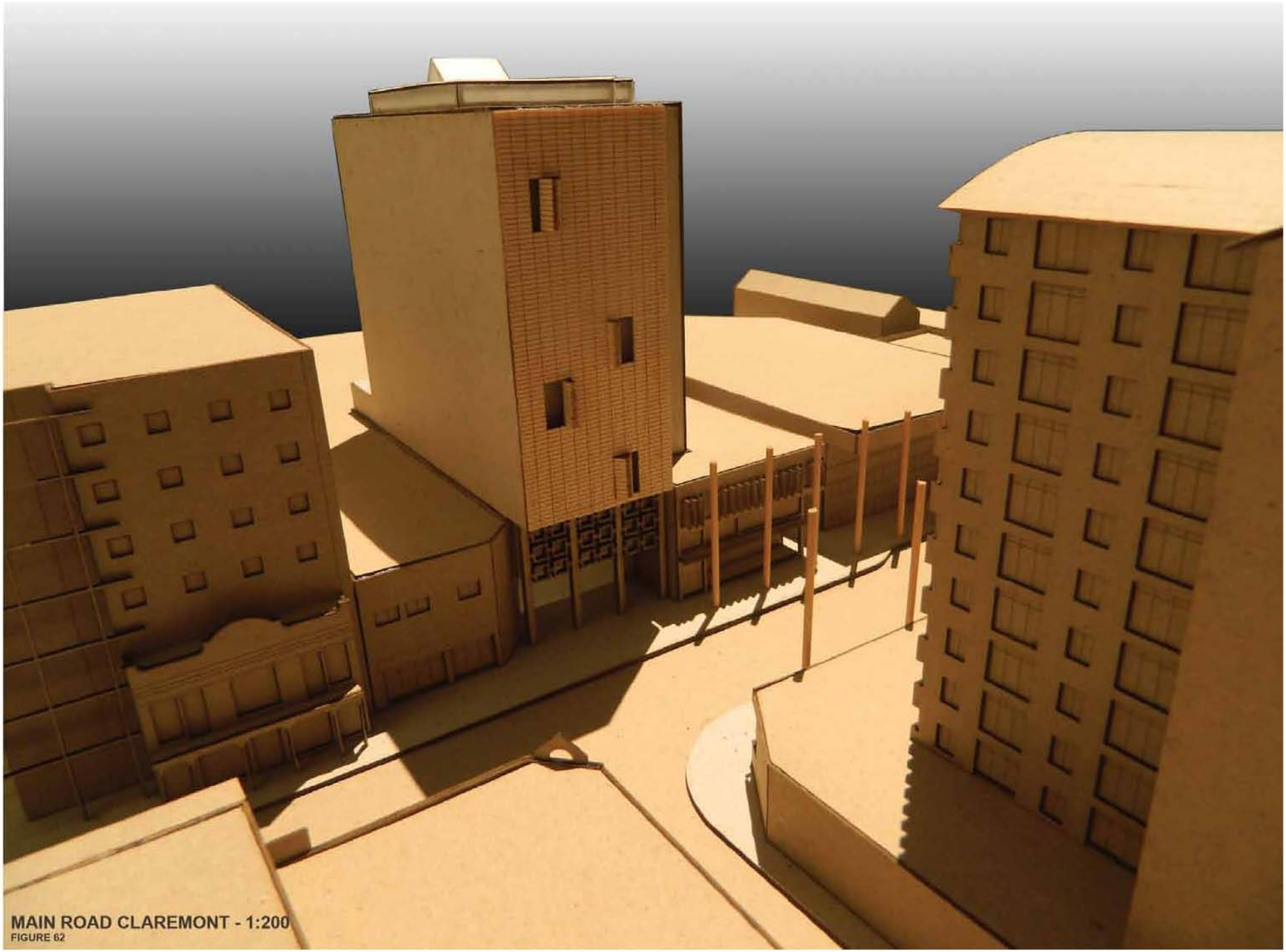
CLAREMONT CONTEXT MODEL - 1:1000
FIGURE 58

CLAREMONT CONTEXT MODEL - 1:1000
FIGURE 60

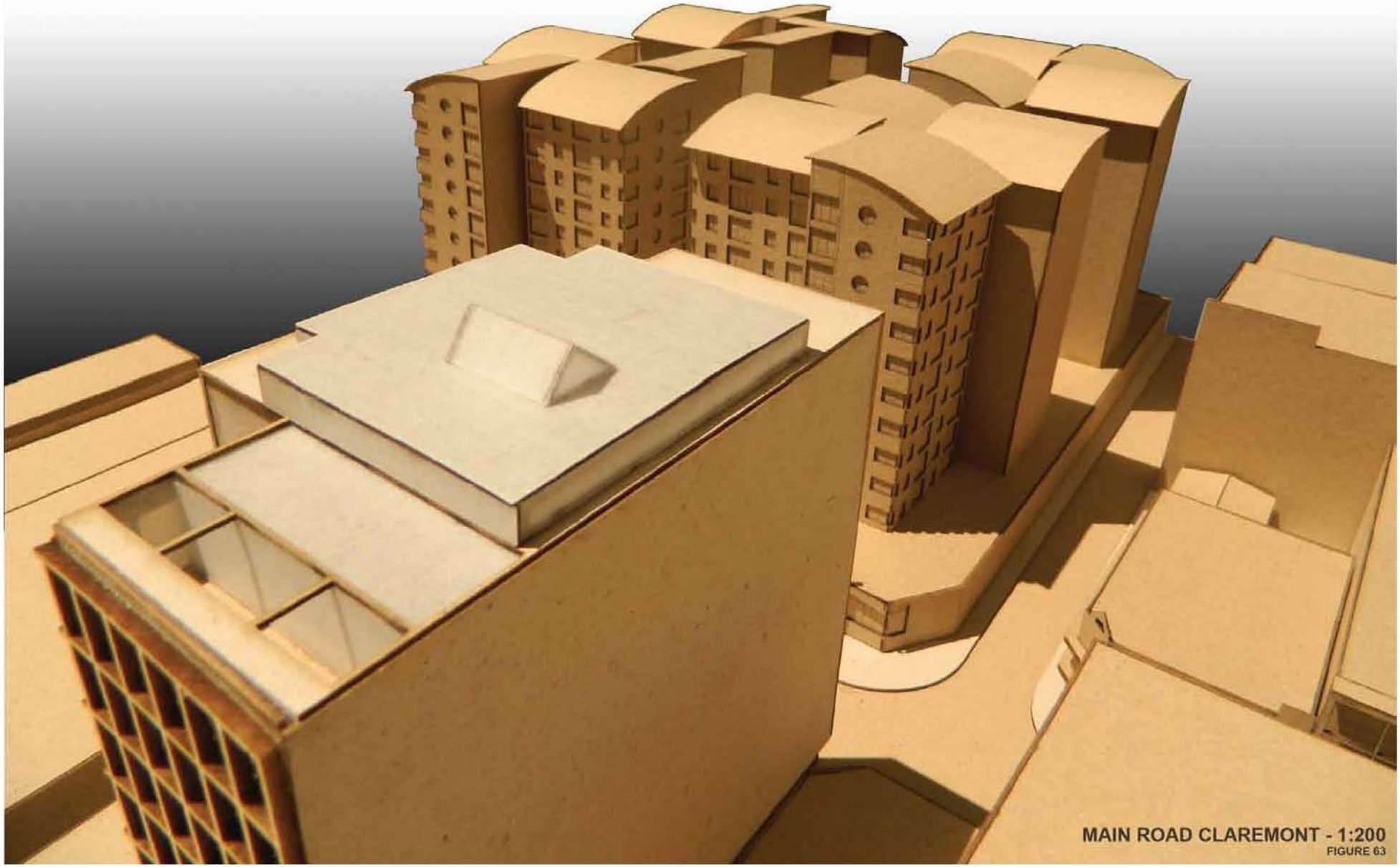


CLAREMONT CONTEXT MODEL - 1:1000
FIGURE 59

MAIN ROAD CLAREMONT - 1:200 MODEL
FIGURE 61

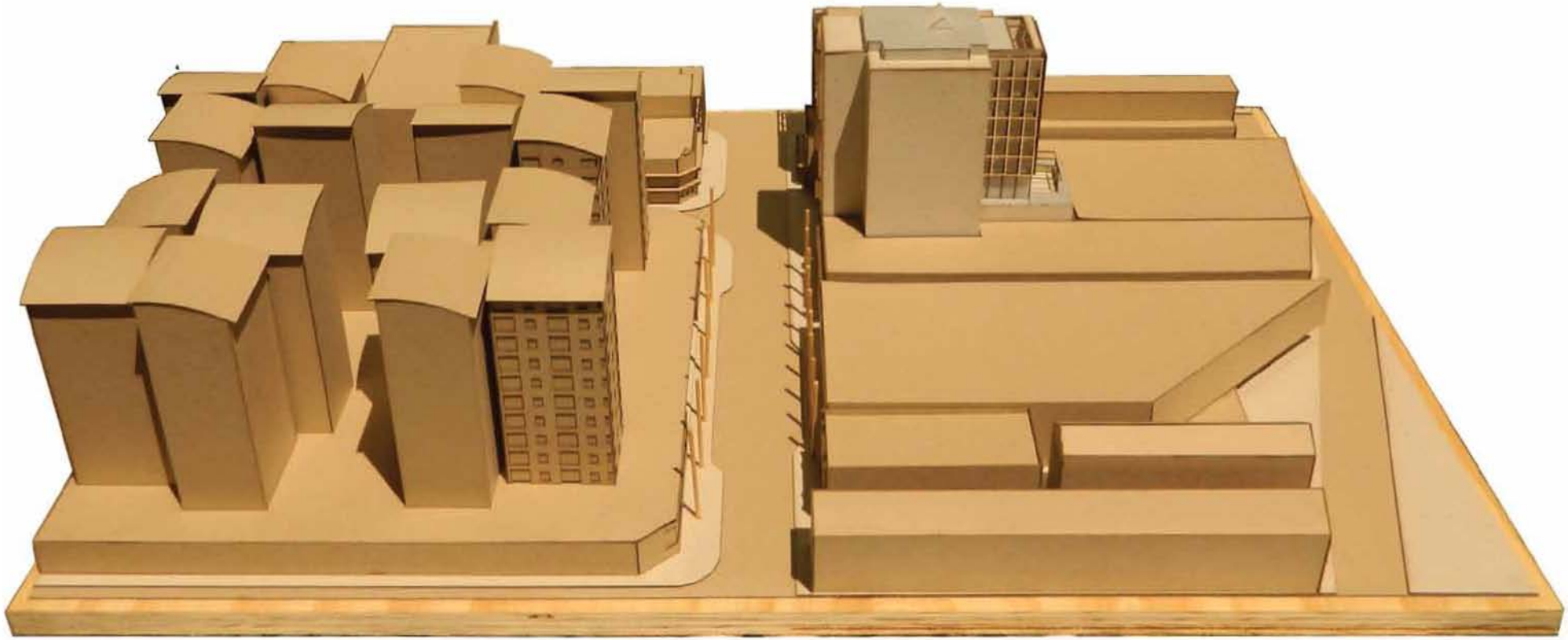


MAIN ROAD CLAREMONT - 1:200
FIGURE 62



MAIN ROAD CLAREMONT - 1:200
FIGURE 63

MAIN ROAD CLAREMONT - 1:200
FIGURE 64



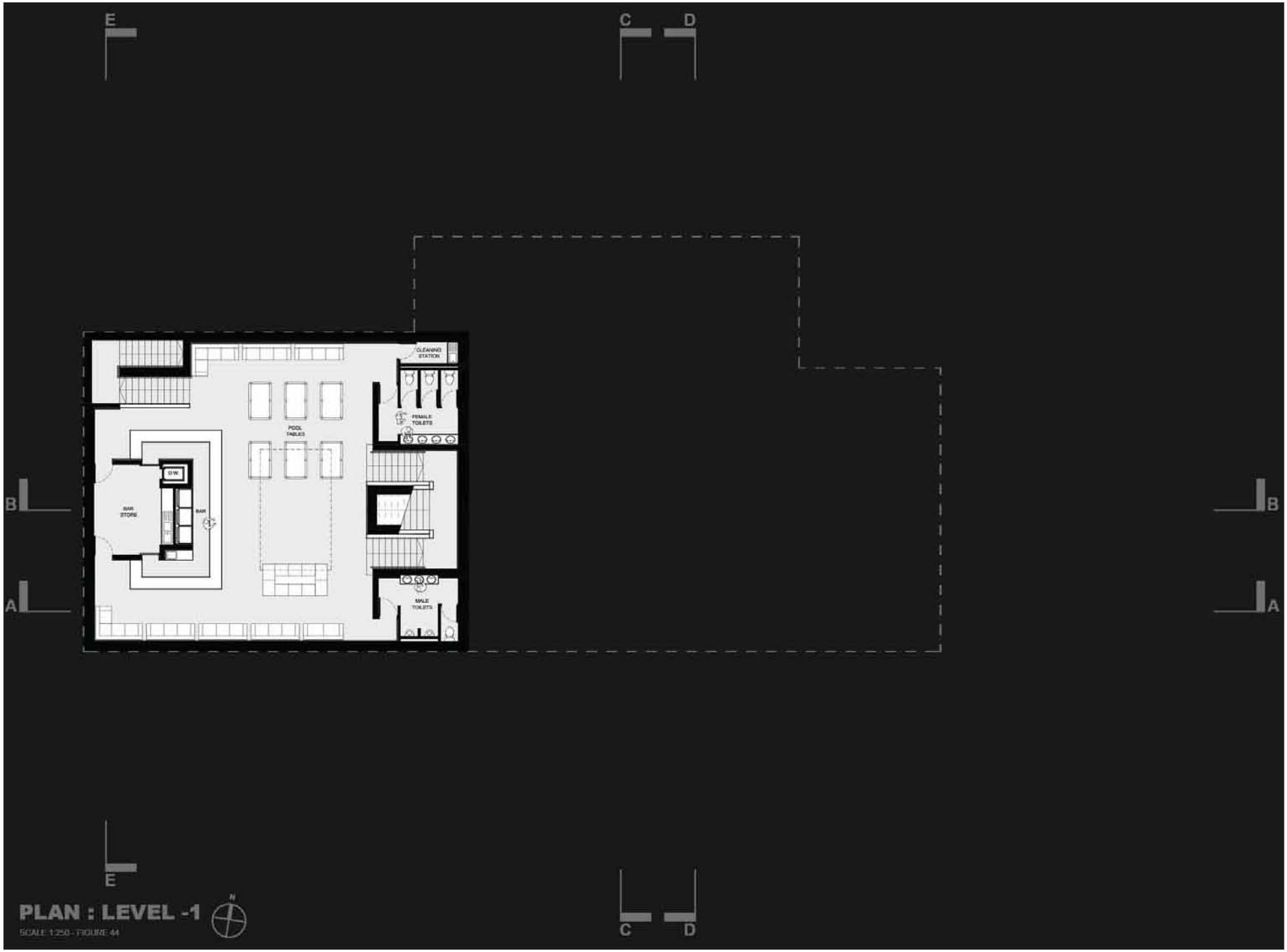
MAIN ROAD CLAREMONT - 1:200
FIGURE 66

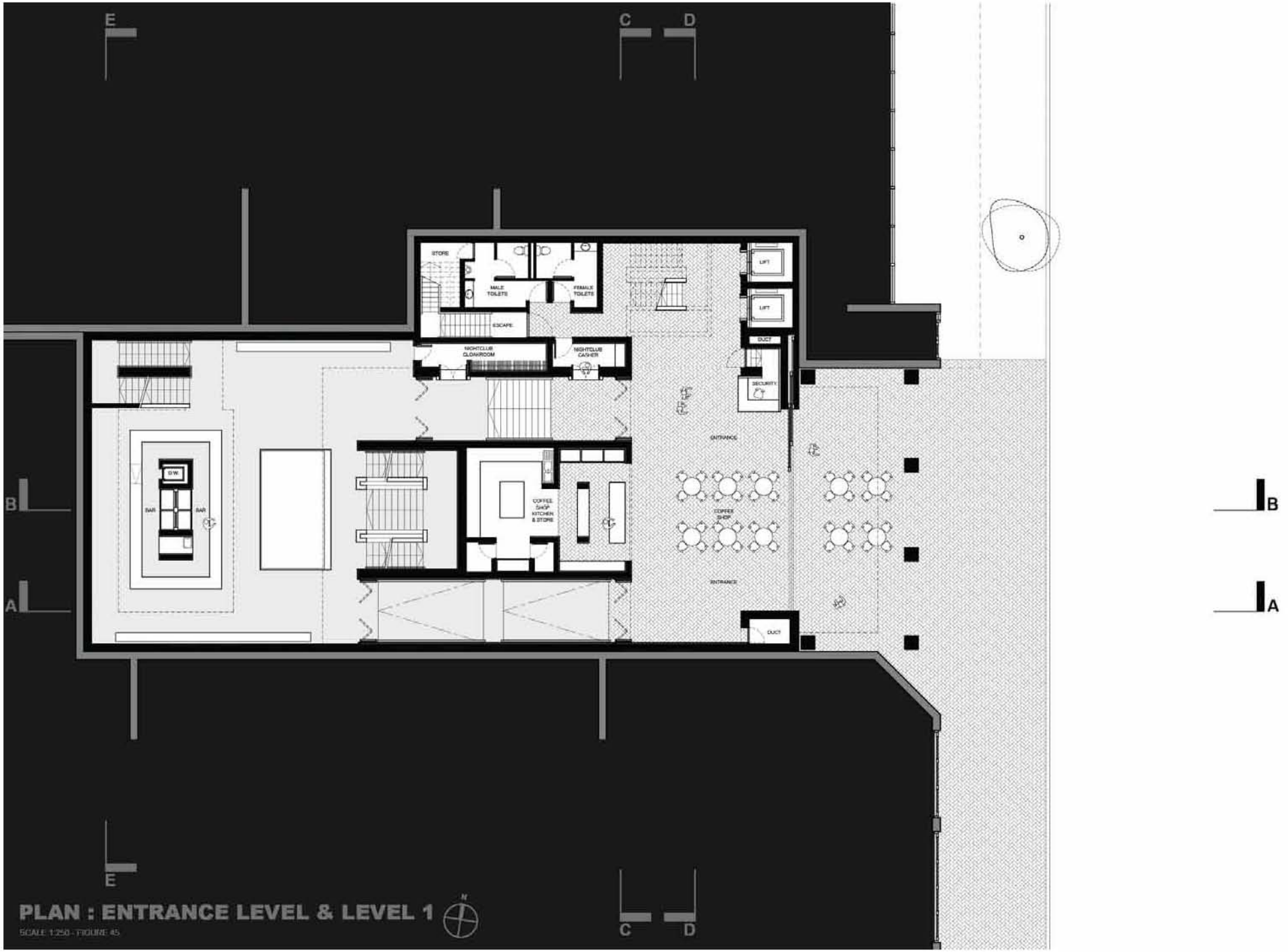
MAIN ROAD CLARMEONT - 1:200
FIGURE 65

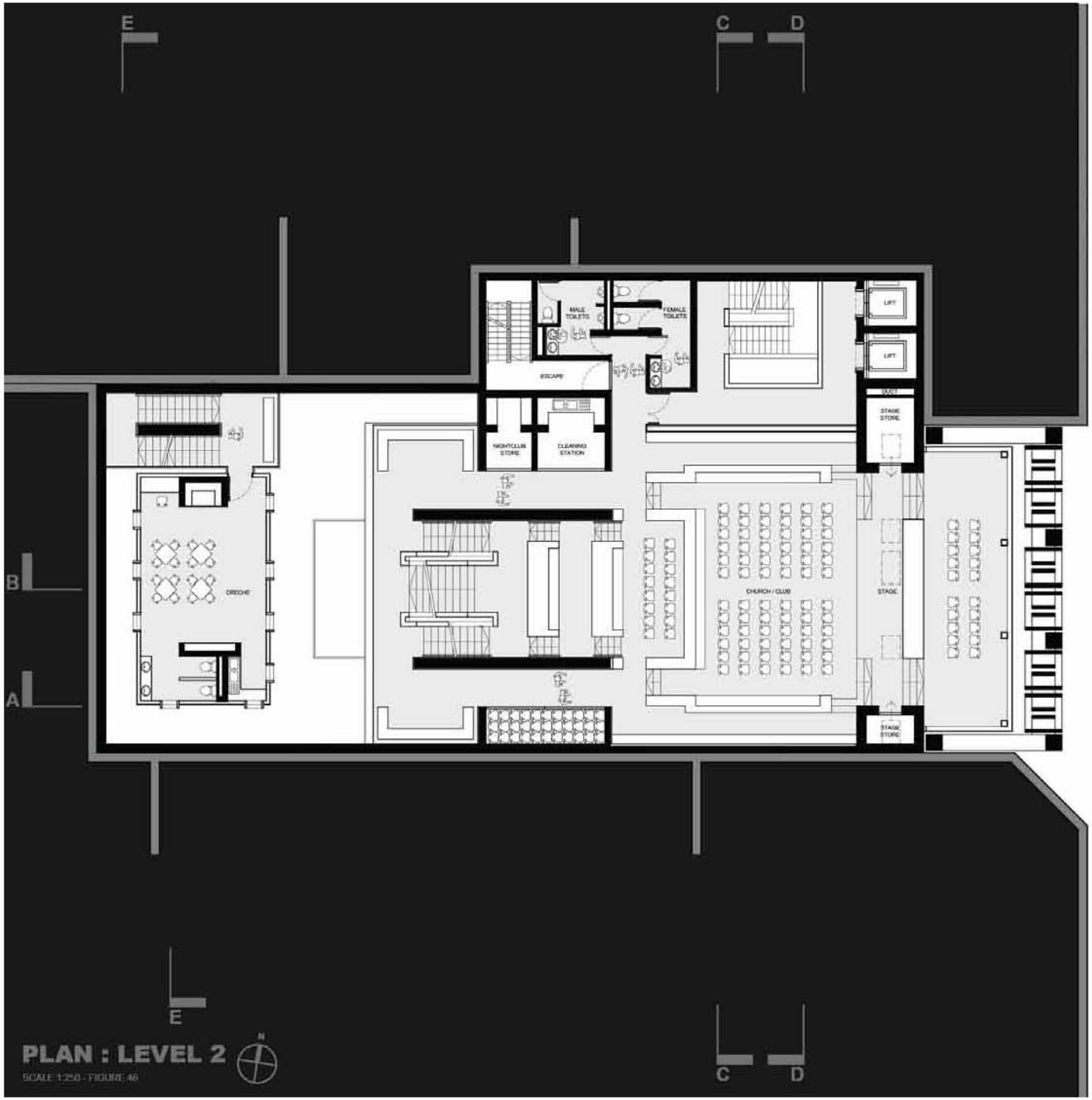
14.

APPENDIX B

FINAL DRAWINGS


E
C
D
B
A
CLEANING STATION
FEMALE TOILETS
POOL TABLES
D.W.
BAR STORE
BAR
MALE TOILETS
PLAN : LEVEL -1
SCALE 1:250 - FIGURE 44


E
C
D
STORE
MALE TOILETS
FEMALE TOILETS
ESCAPE
NIGHTCLUB CLOAKROOM
NIGHTCLUB CASHIER
LIFT
LIFT
DUCT
SECURITY
ENTRANCE
B
A
G.W.
BAR
BAR
COFFEE SHOP KITCHEN & STORE
COFFEE SHOP
ENTRANCE
DUCT
B
A
E
C
D
PLAN : ENTRANCE LEVEL & LEVEL 1
SCALE 1:250 - FIGURE 45

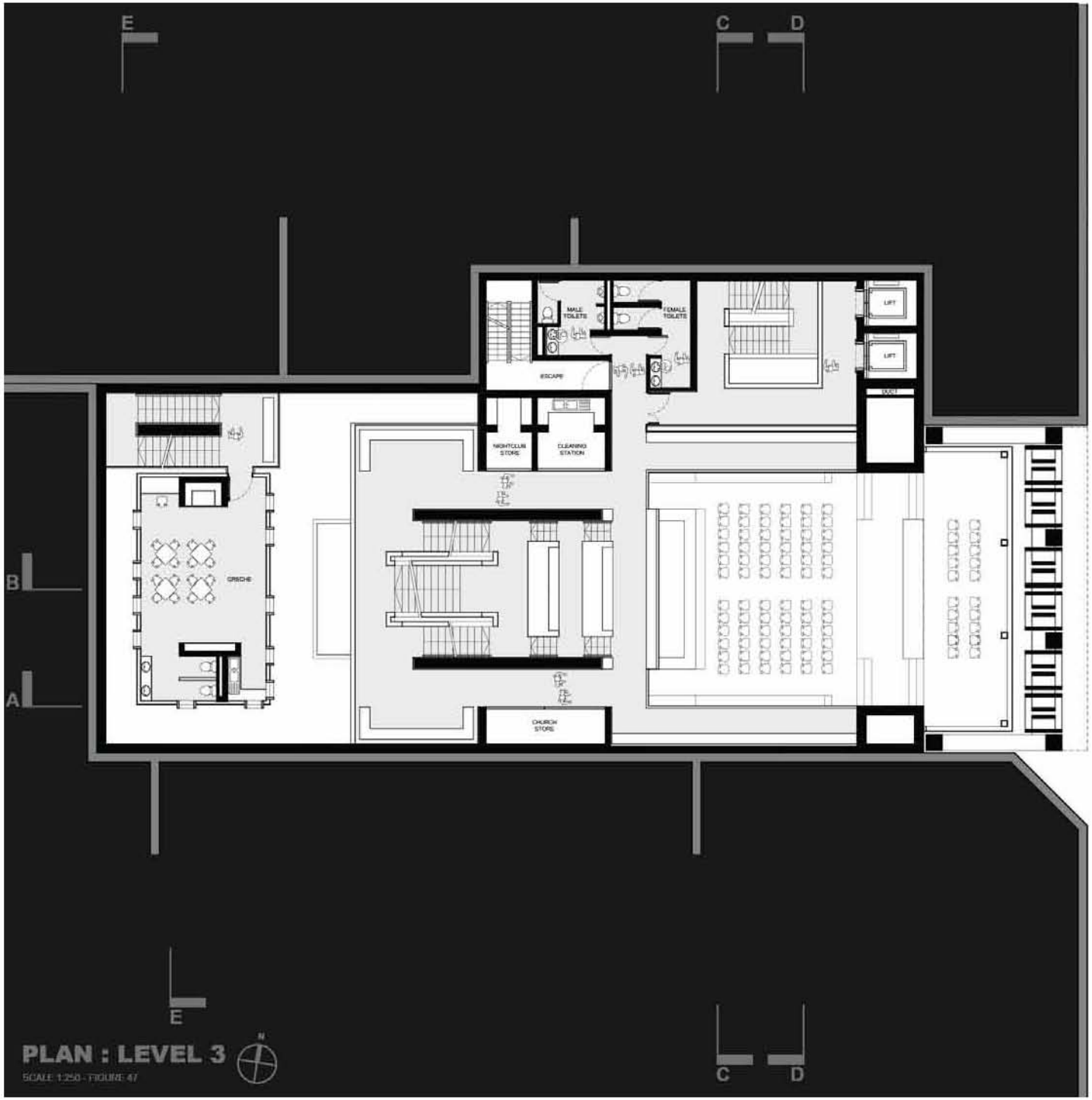


PLAN : LEVEL 2

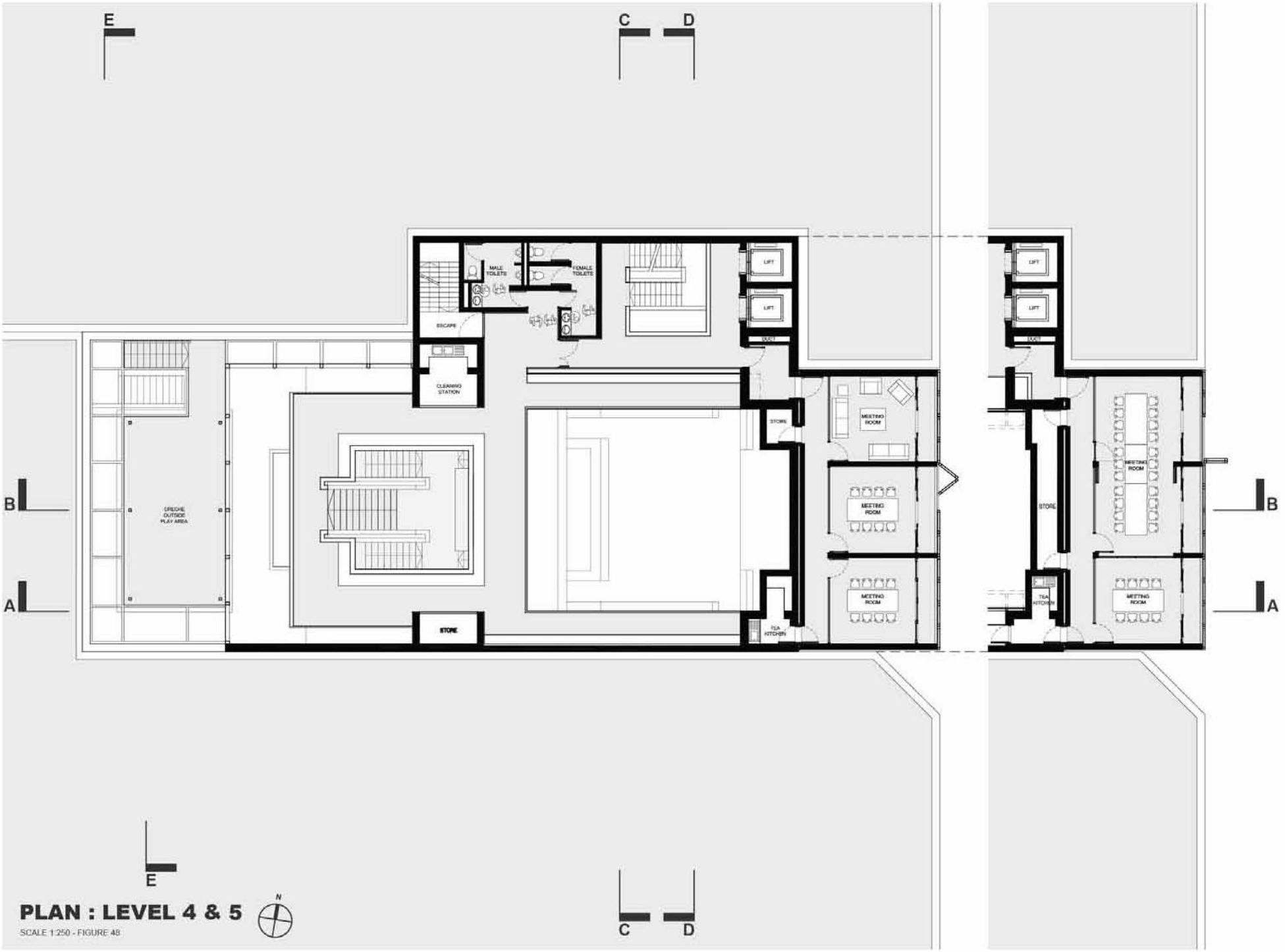
SCALE 1:250 - FIGURE 46

B

A

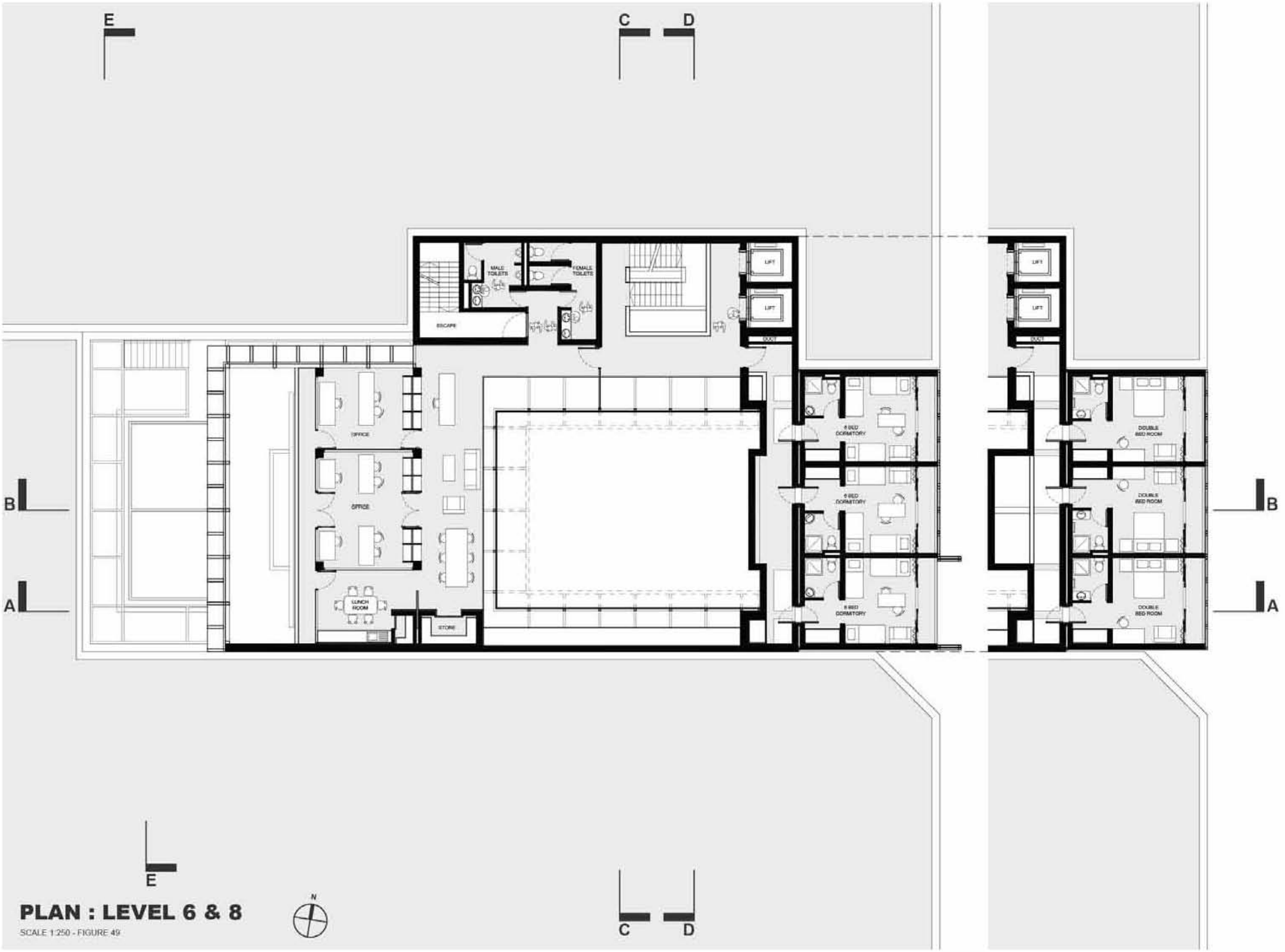

E
C
D
B
A
MALE TOILETS
FEMALE TOILETS
LIFT
LIFT
ESCAPE
NIGHTCLUB STORE
CLEANING STATION
CRECHE
CHURCH STORE
E
C
D
PLAN : LEVEL 3
SCALE 1:250 - FIGURE 47

B
A



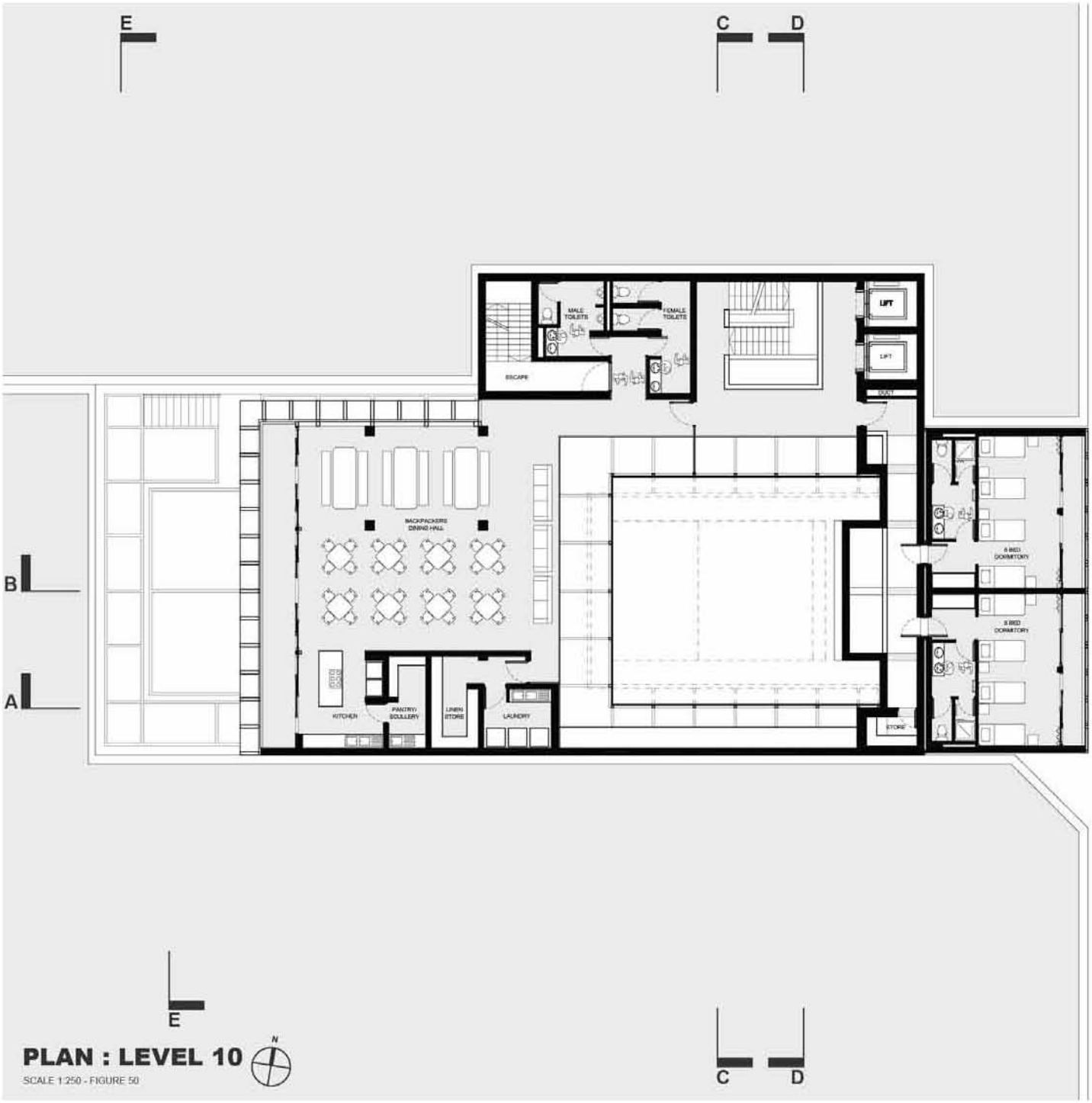
PLAN : LEVEL 4 & 5

SCALE 1:250 - FIGURE 48



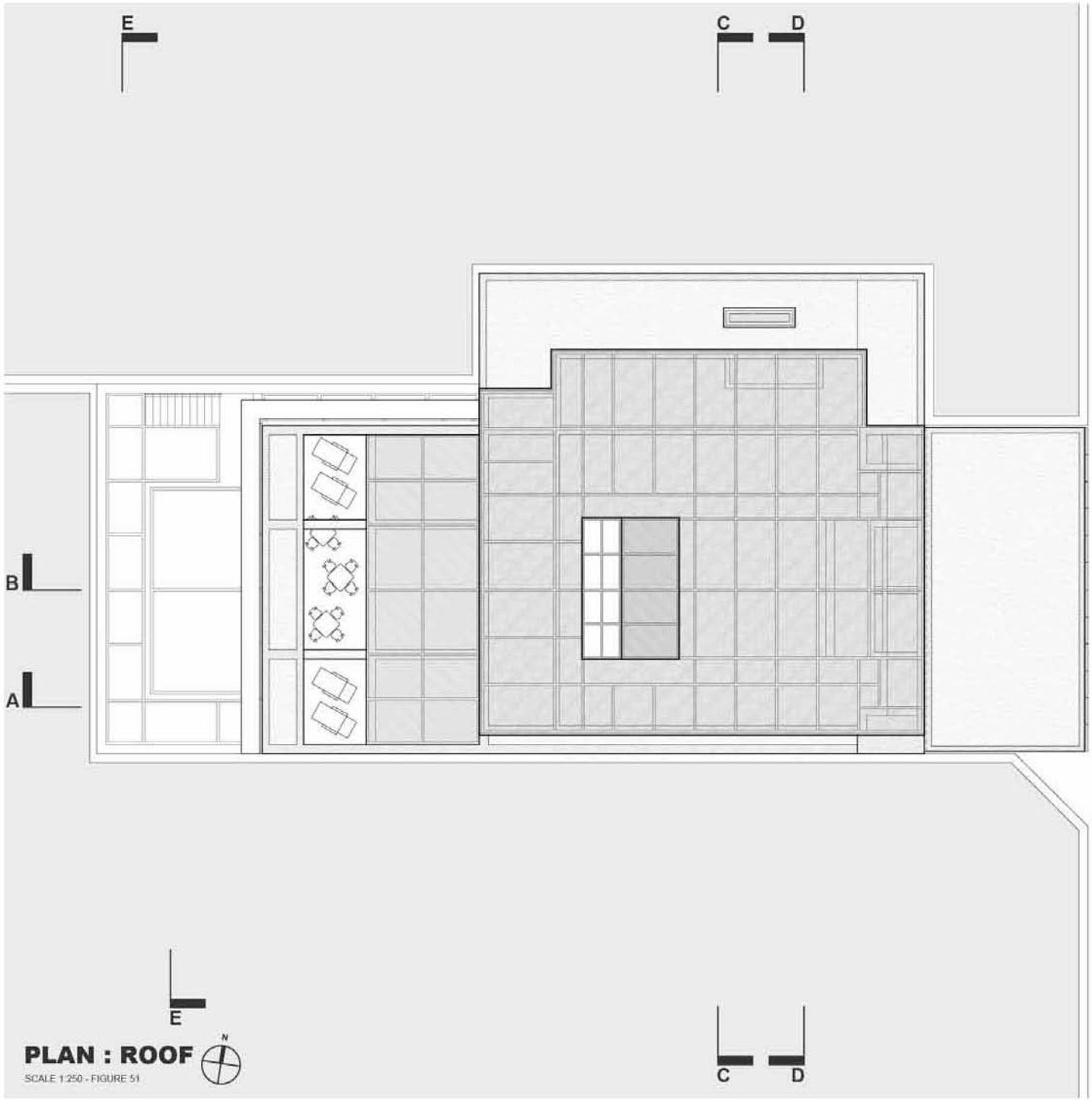
PLAN : LEVEL 6 & 8

SCALE 1:250 - FIGURE 49



PLAN : LEVEL 10

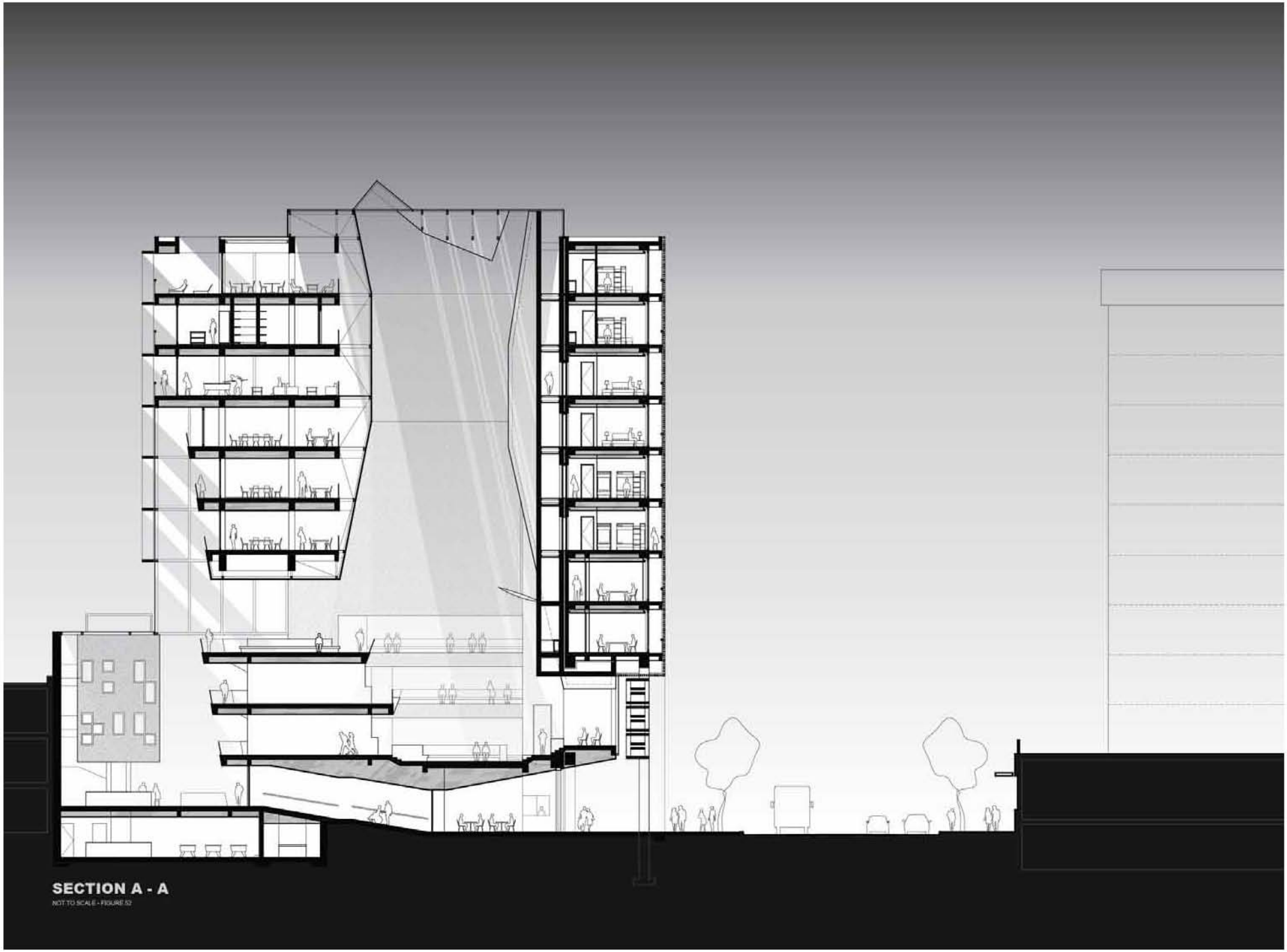
SCALE 1:250 - FIGURE 50



PLAN : ROOF

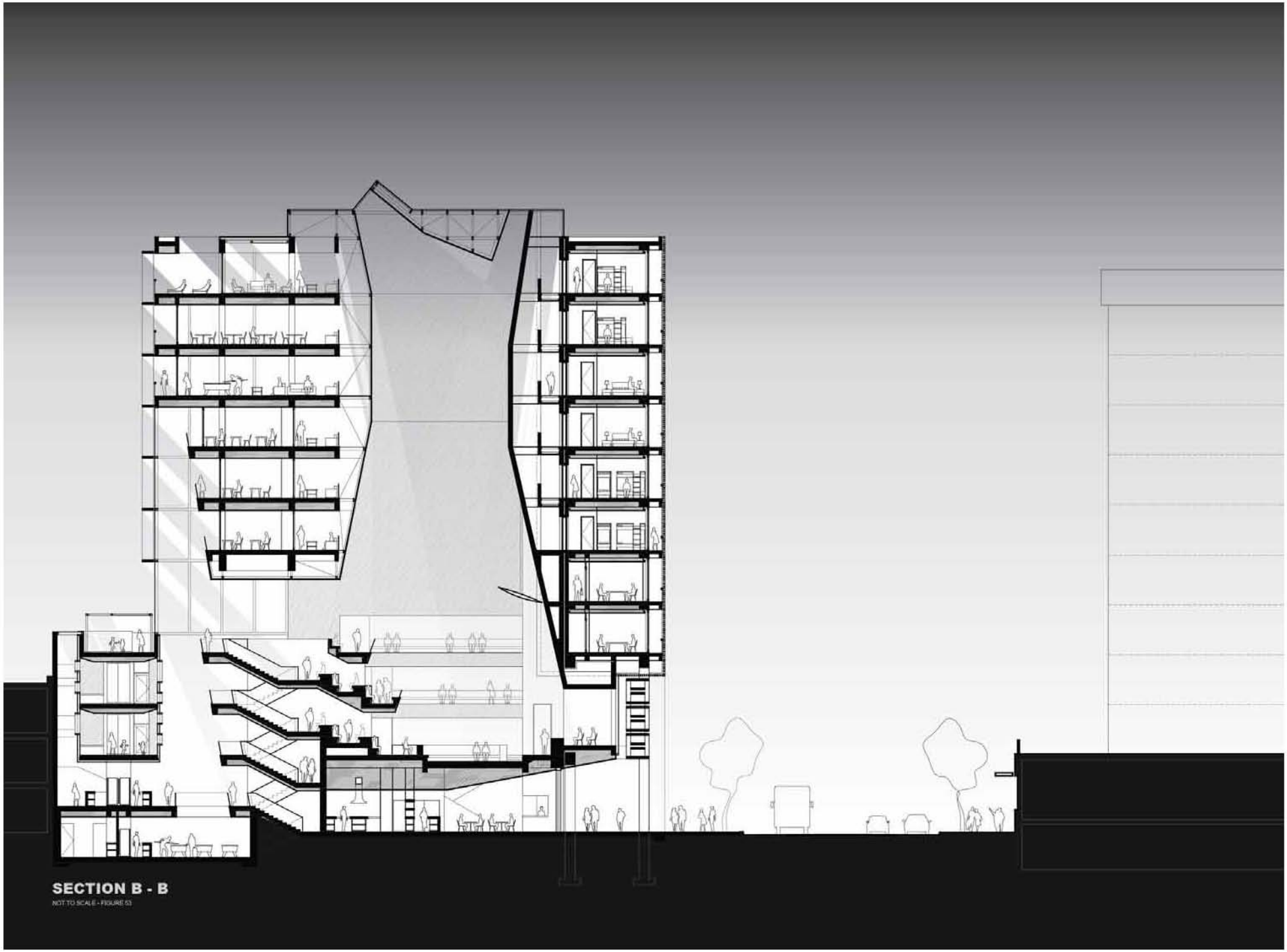
SCALE 1:250 - FIGURE 51

B
A



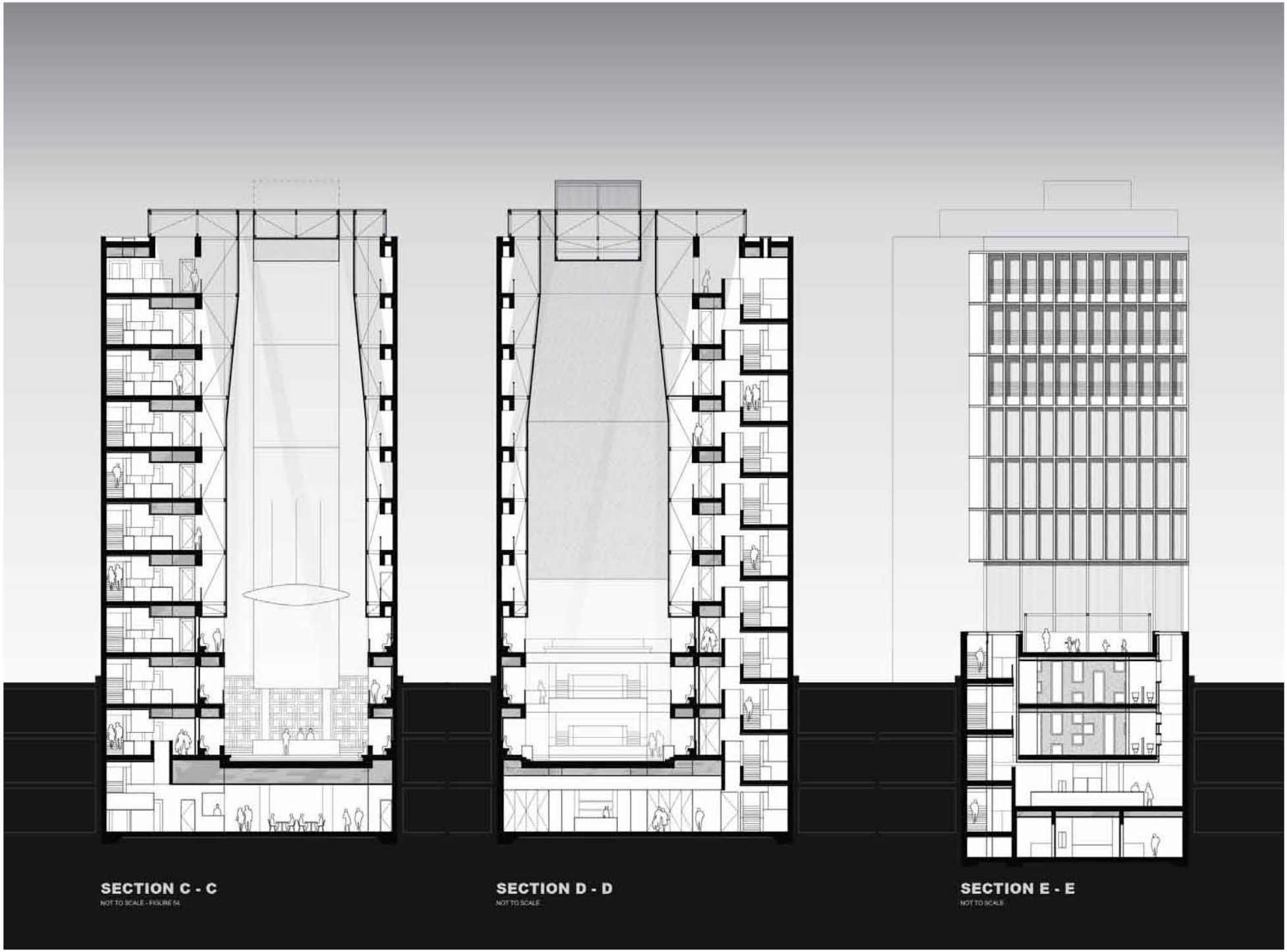
SECTION A - A

NOT TO SCALE - FIGURE 52



SECTION B - B

NOT TO SCALE - FIGURE 53



SECTION C - C
NOT TO SCALE - FIGURE 54

SECTION D - D
NOT TO SCALE

SECTION E - E
NOT TO SCALE

EASTERN ELEVATION

NOT TO SCALE - FIGURE 55

15.

APPENDIX B

ETHICS CLEARANCE FORM